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1. The first part of the document discusses the importance of maintaining accurate records of all transactions and activities. It emphasizes that proper record-keeping is essential for transparency and accountability, particularly in financial matters. The text outlines various methods for collecting and organizing data, including the use of spreadsheets and specialized software. It also mentions the need for regular audits to ensure the integrity of the information.

2. The second section focuses on the role of technology in modern record management. It highlights how digital tools can significantly improve efficiency and reduce the risk of errors compared to traditional paper-based systems. The text describes different types of digital storage solutions and the importance of implementing robust security measures to protect sensitive data from unauthorized access or loss. It also touches upon the challenges of data migration and the need for backup strategies.

3. The third part of the document addresses the legal and regulatory requirements surrounding record-keeping. It provides an overview of relevant laws and standards that organizations must adhere to, depending on their industry and geographical location. The text discusses the consequences of non-compliance and offers guidance on how to stay up-to-date with changing regulations. It also mentions the importance of documenting the processes used to ensure compliance.

4. The final section discusses the long-term value of well-maintained records. It explains how historical data can be used for trend analysis, strategic planning, and decision-making. The text also touches upon the importance of ensuring the long-term accessibility and preservation of records, especially for organizations that need to retain information for legal or historical purposes. It concludes by reiterating the overall importance of a systematic and secure record-keeping approach.

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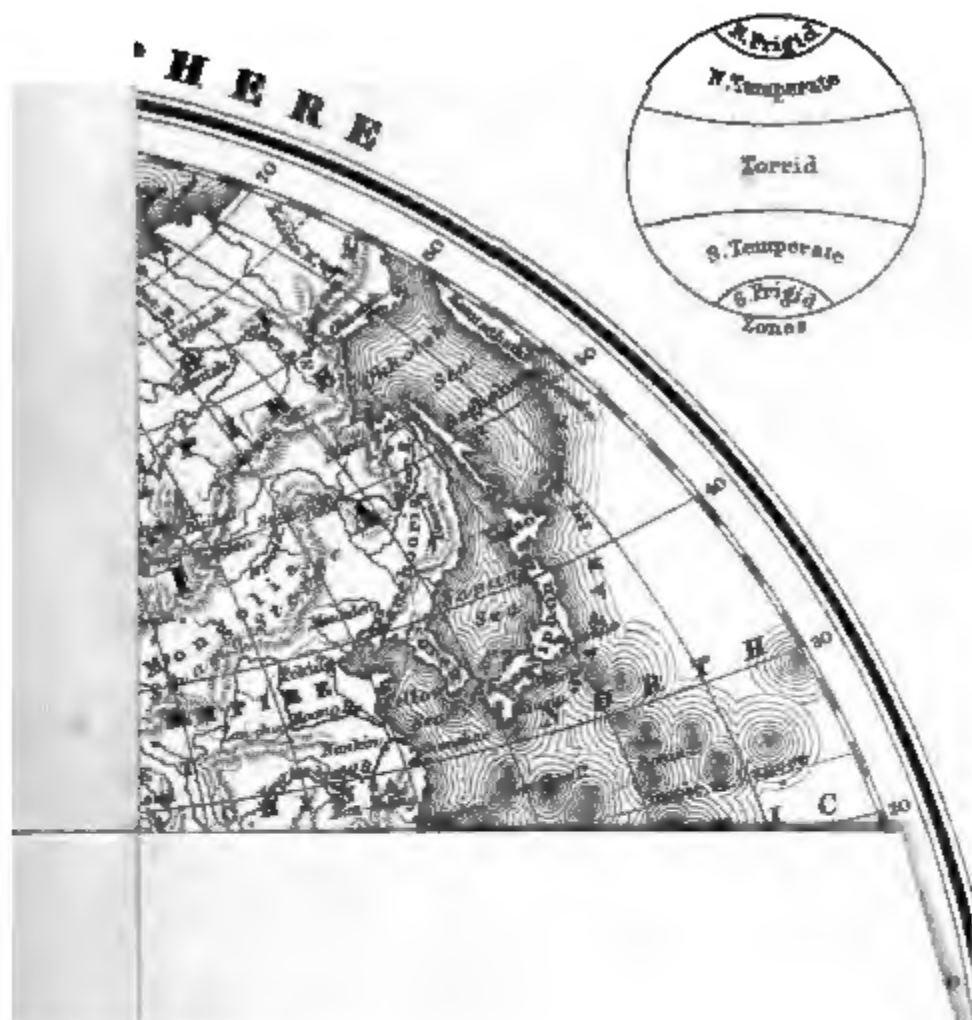
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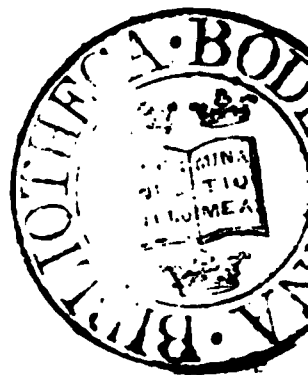
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# INTRODUCTION.

---

**THE** term **GEOGRAPHY** is derived from two Greek words, and means a description of the earth.

It comprehends **PHYSICAL GEOGRAPHY**, or a description of the earth's surface and its natural productions; **POLITICAL GEOGRAPHY**, or the earth as occupied by man and divided into nations and kingdoms; and **MATHEMATICAL GEOGRAPHY**, or the earth as a planet in relation to the sun.

The earth is not, as was long believed, a vast extended plain. It is a ball or globe, a little flatter at two points called the **POLES**, than at any other part of its circumference. Its globular form is proved by the following facts:—

1. When a ship sails from us, the lower parts first disappear, and the topmasts go last out of view. In like manner, when a ship approaches, the sails and masts first appear, and the hull comes last into view. These facts prove that the earth is convex,—that is, bulges out between an observer and distant objects; and, as this happens everywhere, it follows that the world is not a flat plain, but round.

2. The world has been sailed round, first by Magellan, in the years 1518-21; and afterwards by Drake, Anson, Cook, and many others.

3. The sun does not give light to all the surface of the earth at once; but to a part only. To places in the east, his time of rising is earlier than to places to the west. From this it is evident that the earth's surface is not flat, but convex, or round, from east to west.

4. The pole-star appears higher and higher in the heavens the farther we go north; and sinks in the same proportion lower the farther we go south. This, which would not happen were the earth an extended plain, shows that it is round from north to south.

5. *In eclipses of the moon, the earth's shadow has always*

a circular edge; and it is only a round body which can in every position give a circular shadow.

Since the earth is a round body, it is necessary, for the proper study of geography, to learn some of the properties of round bodies, and the meanings of several terms that are used in describing them.

### GENERAL PRELIMINARY DEFINITIONS.

A **SPHERE** is a round *body*, every point on the surface of which is at the same distance from a point within, called **THE CENTRE**.

A **CIRCLE** is a round or curved *line*, every point in which is at the same distance from a point within, called **THE CENTRE**.

Considered with respect to the enclosed surface, the curved line which contains it is often called **THE CIRCUMFERENCE**.

A **DIAMETER** of a sphere, or of a circle, is a straight line from any point on the surface of the sphere, or in the circumference of the circle, passing through the centre to the opposite side.

The **RADIUS** of a circle, or of a sphere, is a straight line drawn from the centre to the surface of the sphere, or to the circumference of the circle.

All radii of the same circle, or same sphere, are equal to each other, and each is half of the diameter.

A diameter divides its circle into two equal parts, called **SEMICIRCLES**.

An **ARC** is any portion of the circumference.

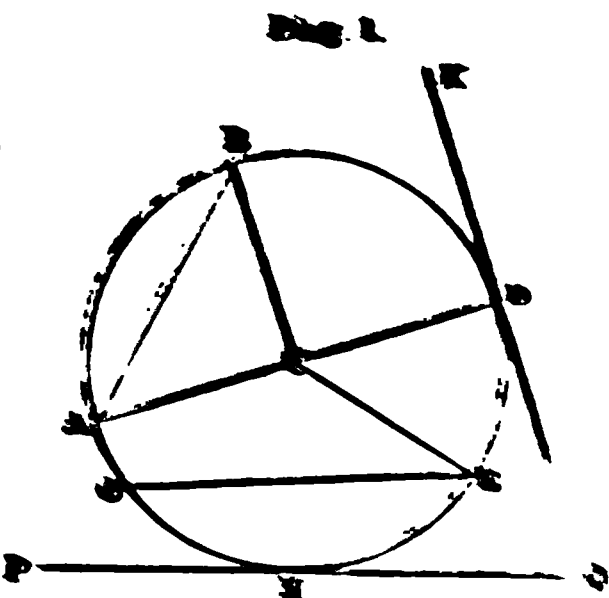
A **PLANE** is a flat surface, such as that of a table, a mirror, a wall, a floor, a lake.

An **ANGLE** is the opening between two straight lines which meet, but are not in the same straight line.

When one straight line stands upon another, so as to make the angles on each side equal to each other—that is, neither leaning to one side nor to the other—it is called a **PERPENDICULAR**; and each of the angles is a **RIGHT ANGLE**.

When two planes are everywhere at the same distance, or when two lines are everywhere at the same distance, they *are said to be* **PARALLEL** to each other.

In the accompanying diagram, the curved line  $A O H E D B A$  is a circle:  $C$  is its centre; equidistant from every point of the circumference.  $CA$ ,  $CB$ ,  $CD$ ,  $CE$  are radii.  $AD$  is a diameter.  $A O H E D$  is a semicircle: and so is the curve  $A B D$ . The opening between  $AB$  and  $AC$  is an angle, called the *lune* (from the Latin word *luna*, moon) (called the *lune* because it is the middle in joining the  $A$  and  $B$ ).  $BC$  and  $CE$  are angles.  $BC$  and  $CE$  are perpendicular to  $AD$ ;  $CD$  and  $ED$  are parallel.



For the purpose of measuring or describing distances on circles, the circumference is supposed to be divided into 360 equal parts. These are called DEGREES, and are marked thus  $^{\circ}$ — $70^{\circ}$  means 70 degrees. To express still smaller parts, each degree is divided into 60 equal parts, called MINUTES, and marked ( $'$ )—and each minute is subdivided into 60 equal parts, called SECONDS, and marked ( $''$ ). Thus,  $31^{\circ} 45' 15''$  means thirty-five degrees, forty-five minutes, and fifteen seconds.

In a semicircle there are 180 degrees; in half a semicircle, called a quadrant, 90 degrees.

An angle is measured by making its sides radii of a circle, the angular point being the centre, and taking the length of the arc on which it stands in degrees, minutes, and seconds. The arc on which the angle stands is the portion of the circumference, between the extremities of the radii which contain the angle. In the above figure, the angles  $ACE$  and  $DCE$  are measured by the number of degrees in the arcs  $AHE$  and  $D E$ , on which they stand; the angle  $ACE$  by the arc  $A H E$ ; the angle  $DCE$  by the arc  $D E$ . We

thus speak of an angle as of so many degrees, minutes, etc. in magnitude. The angle  $B C D$ , whose arc  $B D$  is a quadrant, or fourth part of the circumference, is an angle of  $90^\circ$ . The angle  $D C E$  must be considerably less, or about  $60^\circ$ . The angle  $A C E$ , again, is about  $120^\circ$ .

An angle of  $90^\circ$  is a right-angle.

The PLANE of a CIRCLE, or other curved line, is the imaginary flat surface which would touch every point in that line. It may be supposed to be produced ever so far beyond the line whose plane it is called.

A GREAT CIRCLE of a SPHERE is a circle drawn upon the sphere whose plane passes through the centre of the sphere.

A great circle of a sphere divides the sphere into two equal parts, called HEMISPHERES.

All great circles of a sphere are equal to each other ; cross each other twice ; and divide each other into two equal semi-circles.

A SMALL CIRCLE of a SPHERE is a circle drawn upon its surface, the plane of which does not pass through the centre of the sphere.

A small circle divides the sphere into two unequal parts.

A SPHEROID is a figure like a sphere, but having its surface flattened at the two extremities of one of its diameters, like an orange. That diameter is the shortest ; and the diameter at right-angles to that one is the longest diameter of the spheroid.

ROTATION is the act of a body turning on itself without moving out of its position ; as when a top sleeps in spinning. The body is then said to rotate or revolve.

When a body rotates, there is a line in it which keeps the same place—every other part describing a circle round that line, which is called the AXIS OF ROTATION, or, shortly, the AXIS.

A body may have a motion of *translation*, that is, be continually changing its place, at the same time that it has one of rotation ; as the wheel of a carriage in motion. Other motions than these may also be combined in a body at the same time.

## EXERCISES.

What is the meaning of the term Geography? Of what figure is the earth? Mention some of the proofs that the earth is a round body and not a plain. What is a sphere? What is a circle? What is the diameter of a sphere or circle? What is the radius? Describe an arc, a plane, and an angle. Into how many parts is a circle divided, and what are they called? Describe the plane of a circle. What is the difference between a great and a small circle of a sphere? What is a spheroid? What is meant by rotation?

## GEOGRAPHICAL DEFINITIONS.

I. *Definitions, etc. in Mathematical Geography.*

THE earth has a continual motion of rotation, which is performed once in every twenty-four hours, and is called its **DIURNAL MOTION**.

In rotating, it turns upon one of its diameters, which is called its **AXIS**.

The extremities of the axis, that is, the points where the axis meets the surface, are called **POLES**.

The pole nearest Europe is called the **NORTH POLE**; the other is called the **SOUTH POLE**.

A great circle round the world, equidistant from both poles, is called the **EQUATOR**.

The equator divides the world into two equal hemispheres, called the **NORTHERN HEMISPHERE**, and the **SOUTHERN HEMISPHERE**.

The people who live at the equator have equal day and night during the whole year.

A **MERIDIAN CIRCLE** is a great circle round the earth passing through both poles.

A **MERIDIAN** is the half of a meridian circle between the poles; or a semicircle from pole to pole.

A meridian is called the **MERIDIAN** of any place through which it passes. It is called a meridian, from the Latin word *meridies* (midday), because it is midday, or noon, at any place when the sun, being above the horizon, is in the plane of its meridian; that is, at the greatest elevation in the sky which the sun reaches at that place. The sun is then said to be *on the meridian*.



PARALLELS OF LATITUDE, shortly called PARALLELS, are small circles round the earth parallel to the equator.

Every meridian crosses the equator and every parallel at right-angles.

The world is most correctly represented by a globe, which has nearly the same form, and upon which the various lines above named are drawn, as well as the various seas and countries.

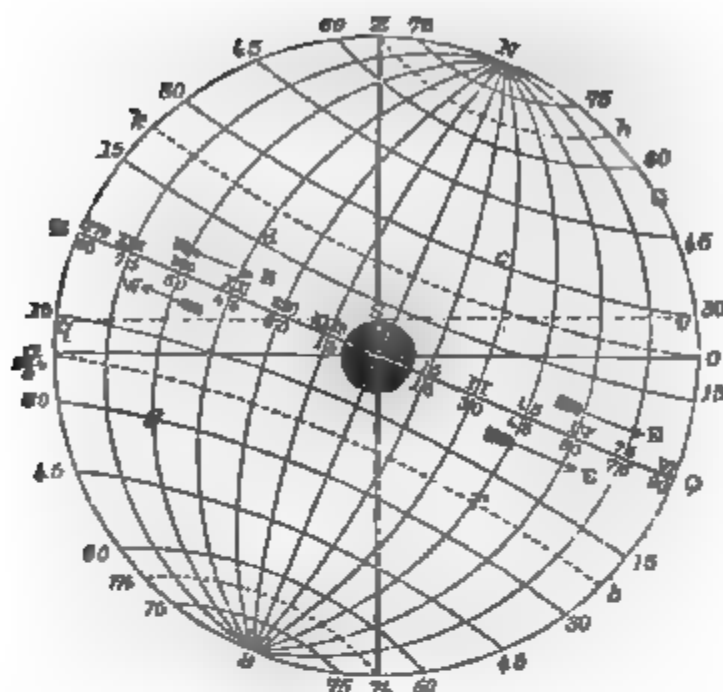
But it is also desirable to have the surface of the earth and the various countries represented on maps which are flat. As the world is round, there must be many inaccuracies in such a representation of it, and these inaccuracies will be greater the larger the portion of the earth's surface we attempt to exhibit on a plane. A small portion of the earth's surface, as a county, or even one considerable country, is very nearly a plane, and we may make a tolerably correct picture of it on a flat sheet. But we cannot do so with a picture of the whole world.

In maps, the whole world is usually represented by two circular surfaces, joined to each other at one point only, as in the frontispiece to this book. Each circular surface exhibits one hemisphere, that is, as much as a person can see of a globe when it is set before him. In the map of the world, in the frontispiece, and in each of the four figures at the corners, as well as in the figure below, each circular flat surface is intended to represent the whole of the round or convex surface of a hemisphere.

The upper part of a map is called the *North*; the lower the *South*; the right side the *East*; the left side the *West*. A place is said to be *north* of one *below* it; *south* of one *above* it; *east* of a place to the *left* of it; *west* of a place to its *right*. In this description we are looking towards the north.

In diagram 2, if N represents the north pole of the earth, and S its south pole, then the line E Q, equidistant from N and S, will be the EQUATOR—or rather one half of the equator, the other half being on the other side of the world. The half that is seen appears to be a straight line; whereas it is a semicircle, and appears so when properly represented on a globe. See the equator in full in the frontispiece.

Diag. 2.



All the lines from N to S are MERIDIANS, and should be semicircles; whereas the middle one appears as a straight line, and of the others, only two are true semicircles, namely, the two parts of the outer circle, N E S and N Q S. Meridians are also shown in the figure at the right hand, in the lower corner of the frontispiece. The meridians run due north and south.

The lines extending between the corresponding numbers on each side, and also the dotted lines Z h, k a, a b, m n, are PARALLELS, or the halves of parallels. Each should be a semicircle. Parallels are also shown in the figure at the left-hand lower corner in the frontispiece. The parallels run due east and west.

North, South, East, and West are easily found out on the earth by means of the sun, the pole-star, or the mariner's compass. As each meridian runs due north and south, if we look at the sun when he is on the meridian, that is at noon, we shall be looking due south; north will be behind; east at the left hand; west at the right hand. Persons in the southern hemisphere will see the sun in the north at

their midday. The method of finding north, etc., by the pole-star will be described in the section on Astronomy.

**LATITUDE** is the distance of a place north or south from the equator. It is measured in degrees, minutes, etc., along the meridian of the place.

As each parallel is everywhere at the same distance from the equator, all the places on it have the same latitude; and it is sufficient to mark its distance from the equator. The latitude of each parallel that is drawn is marked in degrees on the sides of the map. Thus, if we wish to find the latitude of the point *c* in figure 2, we look along the parallel passing through it, and find it marked 30. This means that *c* is in north latitude  $30^{\circ}$ , or, shortly,  $30^{\circ}$  N. L. In like manner, *e* is in south latitude  $30^{\circ}$ , or  $30^{\circ}$  S. L.

**LONGITUDE** is the distance of a place east or west from some meridian agreed upon, called the *first meridian*. The British measure longitude from the meridian which passes through the Royal Observatory at Greenwich; the French from the meridian of Paris.

Longitude is measured in degrees, minutes, etc., along the parallel of the place. As each meridian is, everywhere, the same number of degrees, etc., distant from the first meridian, it is sufficient to mark that number of degrees where it crosses the equator; the number there shows the longitude of every place through which that meridian passes; or the longitude of a meridian is shown at the top of the map. Thus, in figure 2, if the meridian N S represent the meridian of Greenwich, *r* is in  $45^{\circ}$  E. L. (east longitude), as may be found by tracing its meridian to the equator, *under* which, in the figure, longitude is marked. In the same way it will be found that *e* is in  $60^{\circ}$  W. L. (west longitude).

Longitude is reckoned east and west; so that no place can have a greater longitude than 180 E. or W., being in the meridian opposite to that of Greenwich, or in the other half of the same meridian-circle.

When the world is shown in two hemispheres, as in the frontispiece, it is usual to make the meridian-circle, 20 W. and 160 E., the line of separation between the two hemispheres, although the separation might be made anywhere.

By taking this line, the OLD WORLD is included in one hemisphere, at the right, called the EASTERN HEMISPHERE; and the NEW WORLD, discovered by COLUMBUS, in the years 1492-97, is included in the other, called the WESTERN HEMISPHERE.

The HORIZON, or SENSIBLE HORIZON, of a place, is that circle all round where the earth and sky appear to meet. It bounds or limits our view; and takes its name from a Greek word which has this meaning.

The surface of a liquid, when still, is parallel to the plane of the horizon; and planes or lines which are so are called HORIZONTAL; as floors when properly made, etc.

Any straight line or plane that is perpendicular to the plane of the horizon is said to be VERTICAL; as a cord with a weight at its lower end freely suspended, the walls of houses, etc.

When the sun is right over-head at any place, his rays fall on it so as to be at right angles to the plane of the horizon of that place, that is, fall *vertically*. The sun is then said to be *vertical* at that place.

The part of the sky right above the head of the observer is called the ZENITH. There is no difference between saying that the sun is in the zenith of a place and saying that the sun is vertical at a place.

The sun's rays extend  $90^\circ$  all round from the place at which he is vertical. Within that limit there is light—beyond it, darkness. The line between light and darkness is a great circle, and is called the TERMINATOR. It is the boundary line between night and day.

The sun is never vertical at any place north of the parallel of latitude  $23^\circ 28' \text{ N}$ . He is vertical there about the 21st of June; and that parallel is called the TROPIC OF CANCER. It is shown by the dotted line *k o* in figure 2; and may be seen also in the frontispiece.

The sun is never vertical at any place south of the parallel of latitude  $23^\circ 28' \text{ S}$ . He is vertical there about the 21st of December; and that parallel is called the TROPIC OF CAPRICORN. It is shown by the dotted line *a b* in figure 2; and may be seen also in the frontispiece.

The part of the earth's surface which lies between the tropics is called the **TORRID ZONE**. It is about  $47^{\circ}$  in breadth, and is the only part of the earth's surface where the sun is ever vertical. It is distinguished by excessive heat, from which it takes its name of torrid. Within it, the days and nights are nearly equal.

As the terminator lies  $90^{\circ}$  all round from where the sun is vertical, when he is vertical at the Tropic of Cancer, which is  $23^{\circ} 28'$  N. of the equator, the terminator will be  $23^{\circ} 28'$  beyond the north pole, and will fall  $23^{\circ} 28'$  short of the south pole. These are the greatest distances at which the terminator ever is from the poles, and the parallels at these distances from the poles are called the **POLAR CIRCLES**; that which is  $23^{\circ} 28'$  from the north pole being called the **ARCTIC CIRCLE**; that which is  $23^{\circ} 28'$  from the south pole being called the **ANTARCTIC CIRCLE**. *Z h* in figure 2 is the arctic circle; *m n* the antarctic circle. They are also shown in the frontispiece.

The parts of the earth's surface which lie between the tropics and polar circles are called **TEMPERATE ZONES**, north and south. The parts north of the arctic and south of the antarctic circles (or within the polar circles) are called **FRIGID ZONES**, north and south.

In the frigid and temperate zones the sun is never vertical.

In the frigid zones, the cold is extreme; and at midsummer the sun is for several days together above the horizon, as at midwinter he is for several days below the horizon.

In the torrid and temperate zones, the sun is never a whole day (24 hours) above or below the horizon.

In the temperate zones, the climate is mild,—neither very cold nor very warm; from which they take their name. Each zone is about  $43^{\circ}$  in breadth.

The earth is not a perfect sphere. It is a **SPHEROID**, being a little flattened at the poles. The polar diameter or axis is about 7899 miles in length; the equatorial diameter about 26 miles more, or 7925 miles. The **MEAN DIAMETER OF THE EARTH IS ABOUT 7912 MILES**; and its circumference, that is, the length of a meridian circle, is 24,856 miles. The equator is a little longer—24,896 miles.

The surface of the earth contains about 197,000,000 square miles.

The length of a degree of latitude is about 69 miles 70 yards. In consequence of the earth being a spheroid, and not a true sphere, the measure of a degree of latitude is slightly different at different places, increasing in length a little from the equator towards the poles.

In consequence of the parallels decreasing from the equator, where they are longest, to the poles, where they are reduced to nothing, degrees of longitude diminish greatly as the latitude increases. At the equator, a degree of longitude is about 69 miles 280 yards long; at the Tropic of Cancer, about 64 miles; at London, about 43 miles; at the polar circles, about 28 miles.\*

In the frontispiece, and on the globe, a great circle may be seen extending obliquely between the tropics, and there called THE ECLIPTIC.

The true meaning of the ecliptic is, a great circle round *the heavens*, representing the path which the sun's centre appears to describe in a year.

The line on the earth's surface, called the ecliptic, represents in its course the successive parallels at which the sun is vertical during the year; or, in other words, it represents the yearly course of the "verticality" of the sun.

It crosses the equator twice, on the 20th March, and the 23d September, when the sun is vertical at the equator; and then there is equal day and night over all the world. It will be observed, that its northern limit is the Tropic of Cancer—its southern limit, the Tropic of Capricorn.†

The earth rotates from west to east, that is, each place in turning moves *towards* the east *from* the west. It is

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\* See the Table following the Problems on the Celestial Globe, towards the end of the volume.

† Further particulars as to the causes of these circles being at 23° 28' from the equator and poles are given towards the end of the volume in the section on Astronomy:—further details as to climate in the section on Physical Geography. In the mean time, the pupil should not be taught these circles, zones, etc., without some little knowledge being imparted of the reasons for them, and of some phenomena connected with them.

this motion which causes the apparent daily motion of the sun, moon, and stars—in fact of the whole sky, in an opposite direction—that is, *from east to west*—and which gives rise to the alternations of day and night.

## EXERCISES.

Describe the diurnal motion of the earth. What are the poles? Into what equal portions is the globe divided by the equator? What is a meridian? What are parallels of latitude? Can a portion of the earth's surface be correctly represented on a map? How are the north, south, east, and west distinguished? What are the latitude and longitude of a place? What is meant by the horizon? What is the zenith? Into how many zones is the earth divided? What are the boundaries of the torrid zone? Is the earth a perfect sphere? What is a spheroid? What are the polar, equatorial, and mean diameters of the earth? What is its circumference? How many square miles does it contain? What is the length of a degree of latitude? What is the ecliptic? What are its northern and southern boundaries? When is the sun said to cross the equator, and what then takes place? What is the cause of the daily apparent motion of the sun, moon, and stars?

## II. *Definitions in Natural and Political Geography.*

The surface of the earth presents two grand divisions of Land and Water—the former occupying about a fourth, the latter about three fourths of the whole. These divisions, again, are subdivided into parts distinguished by the following among other names, shown in the engraving on the opposite page, which exhibits the chief features of sea and land as these are commonly displayed on maps:—

LAND.		WATER.
Continent.		Ocean.
Country.		Sea.
Island.		River.
Peninsula.		Lake.
Promontory.		Gulf.
Cape.		Bay.
Isthmus.		Creek.
Coast or		Strait.
Shore.		Channel.





A **CONTINENT** is a great tract of land comprehending several countries.

A **COUNTRY** is a smaller portion of land distinguished by a particular name, people, or form of government.

An **ISLAND** is land entirely surrounded by water.

A **PENINSULA** is land almost surrounded by water.

A **PROMONTORY** is a portion of land stretching into the sea.

A **CAPE** is a portion of land stretching into the sea, and appearing to terminate in a point.

An **ISTHMUS** is a narrow neck of land joining two continents, or uniting a peninsula and a continent.

A **COAST** or **SHORE** is that part of the land which borders on the sea.

A **HILL** is a high mass of land; a **MOUNTAIN** a still higher mass of land.

A **TABLE-LAND**, or **PLATEAU**, is a level or nearly level tract of land at some height above the sea.

A **PLAIN** is a level or nearly level tract of land at no great height above the sea.

A **DESERT** is a waste or barren tract of land; an **OASIS** an insulated piece of fruitful land in a desert.

A **VALLEY** is a hollow, sloping inwards, and bounded on each side by higher lands.

A **PASS** or **DEFILE** is a narrow opening between two hills or mountains.

An **OCEAN** is a very large portion of salt water.

A **SEA** is a smaller portion of salt water.

An **ARCHIPELAGO** is a sea studded with islands.

A **RIVER** is a stream of fresh water falling into a sea or lake.

A **DELTA** is the name given to the space between the forked branches or mouths of a river. An arm of the sea running into the land so as to meet a river is called an **ESTUARY** or **FIRTH**.

A **BASIN** is the tract of land drained or watered by a river and its tributaries. A **WATERSHED** is the ridge or height which divides one basin from another.

A **LAKE** is a body of water wholly surrounded by land.\*

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\* Lakes are often in Ireland called *loughs*, and in Scotland *lochs*; though these terms are frequently, in both countries applied to arms of the sea.

A **GULF** is a portion of water almost surrounded by land.

A **BAY** is a portion of water running into the land, with a wider opening than a gulf.

A **CREEK** is a narrow portion of water running into the land.

A **STRAIT** is a narrow passage of water connecting two seas. When a strait is so shallow that it may be fathomed it is called a sound.

A **CHANNEL** is a passage between two seas, longer and broader than a strait.\*

The political divisions of the earth are chiefly empires, kingdoms, and republics.

An **EMPIRE** consists of several countries or states united under one sovereign, who is usually styled an emperor.

A **KINGDOM** is a country governed by a king.

A **REPUBLIC** is a country which is governed by rulers chosen by the people.

### GENERAL DIVISIONS.

The great land divisions of the globe are, the continents of **EUROPE**, **ASIA**, **AFRICA**, and **NORTH** and **SOUTH AMERICA**; **OCEANIA**,† comprising **MICRONESIA**, **MALAYSIA**, **AUSTRALASIA**, and **POLYNESIA**.

Europe and Asia form one great mass of land, to which Africa is united by the Isthmus of Suez; they constitute the *Eastern or Old World*. While North and South America, united by the Isthmus of Darien, is called the *Western or New World*. Oceania occupies portions of both hemispheres.

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\* Small portions of the sea are also distinguished by the terms *road*, *port*, *harbour*, *haven*. A *road* affords anchorage at a short distance from the land, with shelter from winds. A *port*, *haven*, or *harbour*, is a place where ships may lie in security. The mouth of a river, when it widens into an arm of the sea, is called an *estuary* or *frith*. Some of these definitions are not very precise. Thus, *gulf* and *bay*, *promontory* and *cape*, *strait* and *channel*, are often used as convertible terms. So also, *mull*, *naze*, *ness*, *head*, *head-land*, and *point*, are likewise often used as nearly synonymous with *cape*.

† The name given by modern geographers to what is termed the fifth great division of the globe.

The great oceans are, the ATLANTIC Ocean, the PACIFIC Ocean, the INDIAN Ocean, the ARCTIC Ocean, the SOUTHERN Ocean, and the ANTARCTIC Ocean, occupying an area 145 millions of square miles.

The habitable parts of the earth may be estimated at about 51 millions of square miles,\* and the population at 1300 millions. About 369 millions are of the Caucasian or white race; 552 millions of the Mongolian or brown race; 190 millions of the Negro, Ethiopian, or black race; 20 millions of the Malay or tawny race; and 7 millions of the American Indian or copper-coloured race. If we class the inhabitants of the earth according to their religious belief, there are about 335 millions of Christians; 5 millions of Jews; 160 millions of Mahometans; 200 millions of Heathens or Pagans; and 600 millions of Buddhists. Of the Christians, about 170 millions are Roman-catholics, 89 millions are of the Greek Church, and 76 millions are Protestants.

#### EXERCISES.

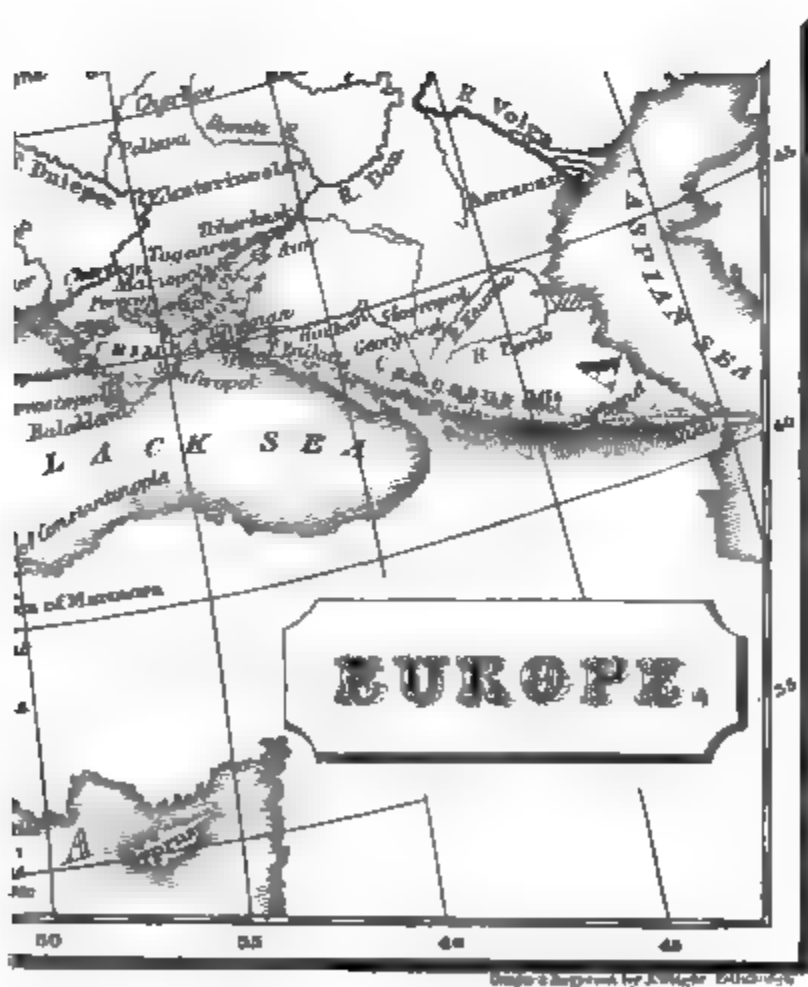
What are the two grand divisions of the surface of the earth? What is a continent, a country, an island, a peninsula, a promontory, a cape, an isthmus, a coast or shore, a hill, a mountain, a table-land, a plain, a desert, an oasis, a valley, a pass, an ocean, a sea, a river, a delta, a frith, a basin, a watershed, a lake, a gulf, a bay, a creek, a strait, a channel? What are the political divisions of the earth? What is an empire, a kingdom, a republic? Mention the great continents of the globe. How are these sometimes distinguished? What are the names of the great oceans? What is the estimated extent of the habitable parts of the globe? What is the number of the population? Into what races is it divided? What are the chief religious creeds of the world? What are the three great classes of Christians?

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\* The superficial areas of the earth's surface are measured by square miles, that is 1 multiplied by 4 or a mile on each side of the square. The areas throughout this work are given in British square miles.



The great oceans are the ATLANTIC Ocean, the PACIFIC



## EUROPE

Is bounded N. by the Arctic Ocean; W. by the Atlantic Ocean; S. by the Mediterranean, the Archipelago, the Sea of Marmora, the Black Sea, and Caucasus Mountains; E. by the Caspian Sea, the River Ural, and the Ural Mountains.

The superficial area is about 3,800,000 square miles; and the population 285 millions.

Countries.	Capitals.	Countries.	Capitals.
England.....	London.	Portugal.....	Lisbon.
Scotland.....	Edinburgh.	Switzerland .....	Berne.
Ireland .....	Dublin.	Italy.....	Florence&Rome.
Norway .....	Christiania.	Turkey .....	Constantinople.
Sweden.....	Stockholm.	Greece.....	Athens.
Denmark .....	Copenhagen.	Russia.....	St Petersburg.
Holland .....	Amsterdam.	Prussia.....	Berlin.
Belgium.....	Brussels.	N. German Conf..	Berlin.
France.....	Paris.	S. German States.	Munich, etc.
Spain .....	Madrid.	Austria.....	Vienna.

**ISLANDS.**—In the Arctic Ocean, Nova Zembla, Spitzbergen; in the Atlantic Ocean, Iceland, Great Britain, Ireland, the Azores; in the Cattegat, Zealand, Funen; in the Baltic, Oland, Gothland; in the Mediterranean, Majorca, Minorca, Iviça, Corsica, Sardinia, Sicily, Malta, the Ionian Islands, Candia; in the Archipelago, Negropont, the Cyclades.

**PENINSULAS.**—Spain and Portugal, Italy, Norway and Sweden; Jutland, in Denmark; Morea, in Greece; Crimea, in the south of Russia.

**ISTHMUSES.**—Isthmus of Corinth, joining the Morea to northern Greece; Isthmus of Perekop, joining the Crimea to Russia.

**CAPIES.**—North Cape, in the north of Norway; Naze, in the south of Norway; Skaw, in the north of Denmark; Duncansby-head, in the north of Scotland; Cape Clear, in the south of Ireland; Land's End, in the south-west of England; Cape la Hogue, in the north-west of France; Cape Ortegal, and Cape Finisterre, in the north-west of Spain; Cape St Vincent, in the south-west of Portugal; Cape Spartivento, in the south of Italy; Cape Matapan, in the south of Greece.

**MOUNTAINS.**—Alps, separating Italy from Germany, Switzerland, and France; Pyrenees, between France and



Spain; Apennines, in Italy; Hæmus or Balkan Mountains, in Turkey; Carpathian Mountains, in Austria; Grampians, in Scotland; Dofrines or Dovrefield Mountains, in Norway; the Kolen Mountains, between Norway and Sweden; Ural Mountains, between Europe and Asia.

**PLAINS.**—A great central plain extends through Russia, North Germany, and the Netherlands; the Hungarian plain of the Lower Danube.

**SEAS AND GULFS.**—White Sea, in the north of Russia; Skager Rack, between Denmark and Norway; Cattegat, between Denmark and Sweden; Baltic, separating Sweden from Germany, Prussia, and Russia; Gulf of Riga, and Gulf of Finland, in the west of Russia; Gulf of Bothnia, between Sweden and Russia; North Sea or German Ocean, between Great Britain and the Continent; St George's Channel, and Irish Sea, between Great Britain and Ireland; English Channel, between England and France; Bay of Biscay, on the west of France and north of Spain; Mediterranean Sea, between Europe and Africa; Gulf of Lions, in the south of France; Gulf of Genoa, in the north-west of Italy; Gulf of Taranto, in the south of Italy; Adriatic Sea, between Italy and Turkey; Archipelago, between Greece and Turkey in Asia; Sea of Marmora, between Turkey in Europe and Turkey in Asia; Black Sea, between Russia and Turkey in Asia; Sea of Azov, in the south of Russia.

**STRAITS.**—The Sound, between Sweden and Zealand; Great Belt, between Zealand and Funen; Little Belt, between Funen and Jutland; Straits of Dover, joining the German Ocean and the English Channel; Straits of Gibraltar, joining the Atlantic and the Mediterranean; Straits of Bonifacio, between Corsica and Sardinia; Straits of Messina, between Italy and Sicily; the Hellespont or Straits of the Dardanelles, joining the Archipelago and the Sea of Marmora; Straits of Constantinople, joining the Sea of Marmora and the Black Sea; Straits of Enikalè, joining the Black Sea and the Sea of Azov.

**LAKES.**—Lake Ladoga, and Lake Onega, in Russia; Lake Wener, and Lake Wetter, in Sweden; Lake of Geneva, in Switzerland; Lake of Constance, between Switzerland and Germany.

**RIVERS.**—The Tagus, in Spain and Portugal, falls into the Atlantic Ocean ; the Ebro, in the north-east of Spain, falls into the Mediterranean Sea ; the Rhone, in the south of France, falls into the Gulf of Lions ; the Loire, in the west of France, falls into the Bay of Biscay ; the Seine, in the north of France, falls into the English Channel ; the Thames, in the south of England, falls into the North Sea ; the Rhine, in Switzerland, Germany, and Holland, falls into the North Sea ; the Elbe, in Germany, falls into the North Sea ; the Oder, in Prussia, and the Vistula, in Poland and Prussia, fall into the Baltic Sea ; the Dnieper, in Russia, falls into the Black Sea ; the Don, in Russia, falls into the Sea of Azov ; the Volga, in Russia, falls into the Caspian Sea ; the Danube, in Germany, Austria, and Turkey, falls into the Black Sea ; the Po, in the north of Italy, falls into the Adriatic Sea.

#### REMARKS.

Europe extends from  $36^{\circ} 0'$  to  $71^{\circ} 5'$  N. lat. ; and from  $9^{\circ} 30'$  W. to  $68^{\circ} 0'$  E. long. Its greatest length, from Cape Roca in Portugal to the E. termination of the Caucasus Mountains on the shores of the Caspian Sea, is 3000 miles ; and its greatest breadth, from Cape Tarifa in Spain to the North Cape in Lapland, is 2400 miles. Coast line 17,000 miles.

Although the smallest of the grand divisions of the world, Europe is the second in population, and by far the most important, from the enterprise, industry, and intelligence of its inhabitants, and their progress in learning, science, and arts. It is situated almost entirely within the temperate zone, and enjoys a climate more favourable for the preservation of the human frame in health and vigour than that of any other equal portion of the earth. The coast line, too, formed by wide projecting promontories, alternating with deep bays, presents, in proportion to its surface, a much greater extent of coast than any other of the great divisions of the globe. Hence spring many peculiar facilities for commerce and navigation, beneficial effects upon climate, and natural products.

The Christian religion, comprehended under the three divisions of the Protestant, the Roman-catholic, and the Greek Churches, prevails in every part of Europe, except Turkey, where the Mohammedan faith is dominant, although a very large proportion of the inhabitants are Christians of the Greek Church.

The following are the political divisions of Europe :—

The **BRITISH EMPIRE**, or **UNITED KINGDOM OF GREAT BRITAIN AND IRELAND**, comprehending England, Scotland, and Ireland ; **SWEDEN** and **NORWAY** ; **DENMARK** ; **HOLLAND** ; **BELGIUM** ; **FRANCE** ; **SPAIN** ; **PORTUGAL** ; **SWITZERLAND** ; **ITALY**, comprehending the Kingdom of Italy, and the Papal States ; **TURKEY** in Europe ; **GREECE** ; **RUSSIA**, including the modern kingdom of Poland ; **PRUSSIA**, comprehending Prussia Proper, Schleswig-Holstein, Hanover, Nassau, Frankfort, Hesse Cassel, and part of Poland ; the **NORTH GERMAN CONFEDERATION**, including **SAXONY**, etc. ; **SOUTHERN GERMANY**, comprising Bavaria, Wurtemberg, Baden, Hesse Darmstadt (S. of the Main), and Liechtenstein ; **AUSTRIA**, comprehending Hungary, part of Poland, and the Tyrol in Italy.

#### EXERCISES.

Name the boundaries of Europe. What is its superficial area ? What countries does it contain ? Name its principal islands. Point them out. Name and point out its peninsulas. Name its capes, and point out their situation. Describe the situation of its principal mountains. Name its seas and gulfs. Point them out on the map. Name its straits. Point them out. Name and point out its principal lakes. Name its principal rivers and trace them on the map.

Between what degrees of latitude and longitude is Europe situated ? What are its length and breadth ? What proportion does it bear, in extent and population, to the other grand divisions of the globe ? In what respect is it the most important ? What advantage does it possess in point of climate ? What facilities does it possess for commerce and navigation ? What are the three leading divisions of the Christian religion in Europe ? What is the only country of Europe where the Christian religion is not established.

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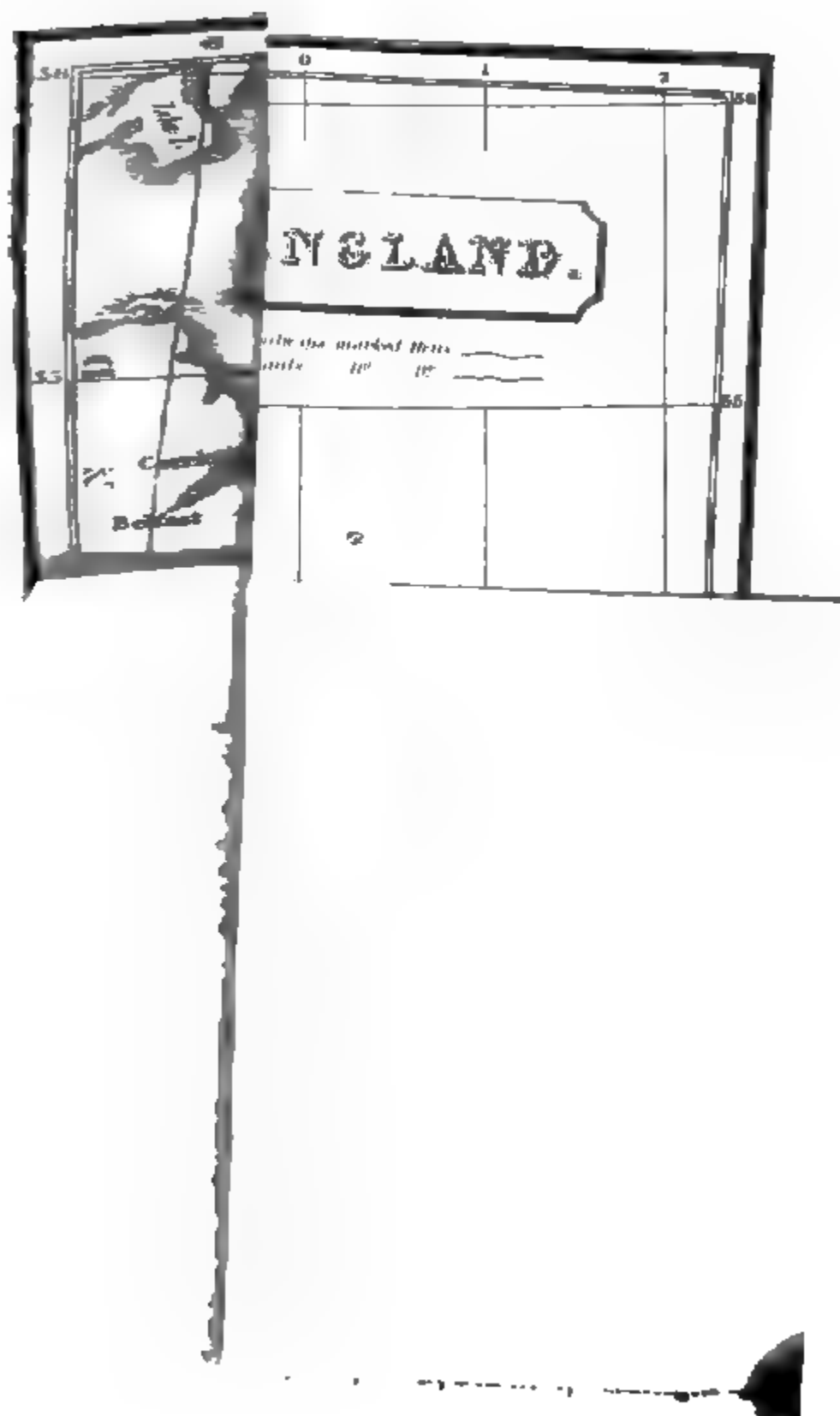
## ENGLAND AND WALES

ARE bounded N. by Scotland ; W. by the Irish Sea and St George's Channel ; S. by the English Channel ; E. by the German Ocean or North Sea.

**EXTENT AND POPULATION.**—The area, including islands, is 57,812 square miles. The population in 1861 was 20,209,671, or 347 individuals to the square mile.

**ENGLAND** is divided into forty counties :—

Counties.	Chief Towns.
Northumberland...	Newcastle, Alnwick, Berwick, Morpeth, Tyne-mouth, North Shields.
Cumberland.....	Carlisle, Whitehaven, Penrith, Workington, Keswick.



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Counties.	Chief Towns.
Durham .....	Durham, Sunderland, Stockton, South Shields, Darlington, Hartlepool.
Westmoreland.....	Appleby, Kendal, Ambleside.
Lancashire.....	Lancaster, Liverpool, Manchester, Preston, Bolton, Blackburn, Wigan, Oldham, Warrington, Rochdale, Ashton-under-Lyne, Bury, Burnley, Accrington, Barrow-in-Furness.
York.....	York, Leeds, Sheffield, Hull, Halifax, Scarborough, Bradford, Huddersfield, Wakefield, Doncaster, Harrowgate, Whity, Middlesbro'.
Lincoln.....	Lincoln, Boston, Stamford, Gainsborough.
Nottingham or Notts.....	Nottingham, Newark, Mansfield.
Derby .....	Derby, Matlock, Buxton, Chesterfield.
Cheshire.....	Chester, Birkenhead, Macclesfield, Stockport, Congleton.
Shropshire or Salop	Shrewsbury, Bridgenorth, Ludlow, Wellington.
Stafford .....	Stafford, Lichfield, Wolverhampton, Newcastle-under-Lyme, Tamworth, Burslem, Stoke-upon-Trent, Bilston, Walsall.
Leicester .....	Leicester, Loughborough, Bosworth.
Rutland.....	Oakham, Uppingham.
Northampton.....	Northampton, Peterborough, Daventry.
Bedford.....	Bedford, Luton, Leighton-Buzzard, Dunstable, Woburn.
Huntingdon .....	Huntingdon, St Neots, St Ives.
Cambridge.....	Cambridge, Ely, Newmarket, Wisbeach.
Norfolk.....	Norwich, Yarmouth, Lynn Regis.
Suffolk .....	Ipswich, Bury St Edmunds, Sudbury, Woodbridge, Lowestoft.
Essex .....	Chelmsford, Colchester, Harwich.
Hertford or Herts..	Hertford, St Albans, Ware.
Middlesex.....	LONDON, Westminster, Brentford, Hampton Court, Uxbridge.
Buckingham or Bucks.....	Buckingham, Aylesbury, Great Marlow, High Wycombe, Eton, Olney.
Oxford.....	Oxford, Banbury, Henley, Witney.
Warwick .....	Warwick, Birmingham, Coventry, Leamington, Stratford-on-Avon.
Worcester .....	Worcester, Kidderminster, Dudley, Stourbridge, Malvern, Droitwich.
Hereford.....	Hereford, Leominster, Ledbury.
Monmouth .....	Monmouth, Chepstow, Newport, Pontypool.
Gloucester .....	Gloucester, Bristol, Cheltenham, Tewkesbury, Stroud, Cirencester.
Wiltshire .....	Salisbury, Devizes, Trowbridge, Bradford, Chippenham.
Berkshire.....	Reading, Windsor, Abingdon.
Surrey .....	Guildford, Croydon, Kingston, Southwark, Lambeth, Farnham, Richmond.
Kent .....	Maidstone, Canterbury, Rochester, Greenwich, Woolwich, Deptford, Chatham, Margate, Ramsgate, Deal, Dover, Folkstone, Tunbridge.

Counties.	Chief Towns.
Sussex.....	Chichester, Lewes, Brighton, Hastings.
Hampshire, Hants, Winchester, Southampton, Portsmouth, Lym- or Southampton	ington, Gosport, Newport.
Dorset.....	Dorchester, Weymouth, Poole, Lyme Regis.
Somerset.....	Bath, Wells, Taunton, Bridgewater, Frome.
Devon.....	Exeter, Plymouth, Devonport, Barnstaple, Ta- vistock, Tiverton, Dartmouth, Torquay.
Cornwall.....	Bodmin, Truro, Launceston, Falmouth, St Ives, Penzance, Redruth.

WALES is divided into twelve counties :—

Flint.....	Mold, Flint, Holywell, St Asaph.
Denbigh.....	Denbigh, Wrexham, Llangollen, Ruthin.
Carnarvon.....	Carnarvon, Bangor, Conway.
Anglesea.....	Beaumaris, Holyhead, Amlwch.
Merioneth.....	Dolgelly, Bala.
Montgomery.....	Montgomery, Welshpool, Newton, Llanidloes.
Radnor.....	New Radnor, Presteign, Knighton.
Brecknock.....	Brecknock or Brecon, Builth, Hay.
Cardigan.....	Cardigan, Aberystwith.
Pembroke.....	Pembroke, Haverfordwest, Tenby, St Davids.
Carmarthen.....	Carmarthen, Llanelly, Kidwelly.
Glamorgan.....	Cardiff, Merthyr Tydvil, Swansea, Llandaff.

ISLANDS.—Man, in which are the towns of Douglas, Ramsey, Peel, and Castletown; Anglesea (a county of Wales); Scilly Isles, the principal of which is St Mary's; the Isle of Wight, in which are Newport, Cowes, and Ryde; the Channel Islands, namely, Jersey, Guernsey, Alderney, and Sark,—in the two first are St Helier and St Pierre; Sheppey; Thanet; Coquet; Holy Island.

BAYS AND STRAITS.—Bridlington Bay, Humber Mouth, the Wash, Yarmouth Roads, the Downs, Straits of Dover, Spithead, Torbay, Mounts Bay, Bristol Channel, Swansea Bay, Carmarthen Bay, Milford Haven, St Bride's Bay, Cardigan Bay, Carnarvon Bay, the Menai Strait, Morecambe Bay, Solway Frith.

SANDBANKS.—Dogger Bank, in the German Ocean, between the Yorkshire coast and Jutland; Goodwin Sands, on the east of Kent.

CAVES.—Flamborough Head, Spurn Head, North Foreland, South Foreland, Dungeness, Beachy Head, Needles, St Alban's Head, Portland Point, Start Point, Lizard Point, Land's End, Hartland Point, Worms Head, St Goven's Head, St David's Head, Strumble Head, Great Ormes Head, St Bees' Head.

**MTAINS.** — Cheviot Hills, Skiddaw, Scafell, Hel-Whernside, Ingleborough, Pennygant, the Peak, the Snowdon, Arran-Fowddy, Cader-Idris, Plinlim-ecknock Beacon.

**s.** — Derwentwater or Keswick Lake, Ullswater, mere, Bala.

**rs.** — Tyne, Wear, Tees, Eden, Yorkshire Ouse, Mersey, Dee, Wye, Severn, Trent, Witham, Ouse, THAMES, Medway, Itchen, Test, Avon, Exe, Avon.

**SH COLONIES AND FOREIGN POSSESSIONS.** — In — Heligoland, Gibraltar, Malta and Gozo. In India and its dependencies; Ceylon, Penang, re, Hong-Kong, Labuan, Andaman Islands, Aden. —Cape Colony, British Caffraria, Natal, West ettlements (embracing Sierra Leone, Gambia, Gold and Lagos), Mauritius, and Seychelles Islands.

**AMERICA**—The Dominion of Canada (comprising provinces, viz., Quebec, Ontario, New Brunswick, a Scotia, with Cape Breton Island); Prince Edward Newfoundland, Hudson's Bay Territory, British a (including Vancouver Island). **WEST INDIES**—

, Antigua, Barbadoes, Dominica, Grenada, Mont-Nevis, St Christopher, St Lucia, St Vincent, Tortola, Anguilla, Trinidad, Bahamas, Turks and Islands, Bermudas. **SOUTH AMERICA**—British

comprehending Demerara, Essequibo, and Berbice; d Islands. **AUSTRALASIA**—New South Wales, and, Victoria, S. Australia, W. Australia, Tasmania y Van Diemen's Land), New Zealand, Norfolk Island, id Islands. The whole forming an area of 7,562,316 miles, and a population of 161,559,471; being about nes the extent of the United Kingdom.

#### REMARKS.

nd, including Wales, extends from 49° 58' to 55° 46'.N. from 5° 40' W. to 1° 45' E. long. Its length, from to the Isle of Wight, is 360 miles, and its breadth, North Foreland to the Land's End, is 300 miles.

rface of England is agreeably diversified into mountains, leys, and plains. In the north the Cheviot Hills Northumberland from Scotland. The Pennine range through *Westmoreland*, and terminates in the Peak of



Derbyshire. On the west the Welsh mountains are of considerable elevations, Snowdon the highest mountain in South Britain, rising to 3590 feet; the middle region is undulating, while the eastern counties extend into level and fertile plains. The mountain scenery is of the most picturesque description; and the lakes of Cumberland and Westmoreland vie in beauty, if not in extent, with the romantic lochs of Scotland.

The climate of England, owing to the insular situation, is comparatively mild, though variable. About twice as much rain falls on the western counties as on the eastern, and in consequence of this difference of climate, pasturage is more attended to in the west, and tillage in the east. In the arable districts the effect of industrious and skilful culture is apparent, and there are few countries where so small a portion of the soil is allowed to lie waste and unproductive.

In the northern and west midland counties are extensive mines of coal and iron, and in these regions lie the most populous towns, the seats of various manufactures, for which England is so celebrated. Mines of lead, copper, and tin are also considerable, and extend to the south-west extremity of the kingdom.

It is this command of materials, together with the ingenuity and industry of the people, which has produced such a wonderful extension of the manufactures and commerce of the country. By the modern inventions of machinery, every species of manufacture has been increased to an extent which enables the United Kingdom to supply all parts of the world with articles of convenience and luxury; while the necessaries of life are as freely imported to supply the demands of a population increasing beyond the means of the local resources of the soil.

The annual quantity of coal raised in Britain exceeds 100 millions of tons, and that of iron ore 10 millions of tons. Including gold, silver, tin, copper, lead, the annual value of the mineral wealth of Britain amounts to £40,000,000 sterling.

The total annual exports of British manufactures, consisting chiefly of cottons, linens, woollens, and iron manufactures, has a money value of £181,000,000 sterling, besides foreign and colonial goods re-exported, amounting to £44,800,000. The annual value of imports amounts to £275,000,000. To carry on this commerce, 21,000 sailing ships and steamers are employed, with an aggregate tonnage of 5 millions tons, and 196,000 men, exclusive of foreign shipping. The assumed annual value of real property of the United Kingdom from the *income-tax* returns, amounts to £154,000,000. The annual *revenue of the country* amounts to £70,000,000. The national

debt, which dates from the Revolution of 1688, amounts to £786,500,000, with an annual interest of £26,000,000.

The internal communications throughout the kingdom, by roads, canals, and railways, are now very complete. The Duke of Bridgewater's Canal, executed in 1776, was followed in 1777 by the Grand Trunk Canal, uniting the Trent and Mersey, and communicates between Hull and Liverpool; while the Grand Junction Canal, at an expense of £2,000,000, completed the inland navigation by the Thames, the Severn, the Trent, and the Mersey. The first *great* railway was that of Liverpool and Manchester, opened in 1830; and since that time railway communication has been carried to such an immense extent that there are now upwards of 13,000 miles completed in the United Kingdom, with a paid-up capital of nearly £482,000,000. The number of passengers conveyed by them is about 258,000,000 every year; and the annual receipts from their traffic of all kinds amount to more than £38,000,000. Wires, stretching along nearly every line of railway, convey information from place to place by the electric telegraph almost instantaneously.

The constitution of the United Kingdom is that of a limited monarchy, with a hereditary sovereign either male or female, and of the Protestant religion. The Queen is the head of the state, the fountain of all honours of nobility, has the prerogative to declare war or make peace, to levy soldiers, and appoint officers of the army and navy—is the head of the English church, and calls together and dissolves Parliament, appoints judges and inferior magistrates. Parliament consists of the House of Lords, which is made up of all the peers of England, about 400, sixteen Scotch peers elected from the nobility, twenty-eight Irish peers, and thirty prelates. The House of Commons consists of 658 members, returned from the counties, towns, and universities of the kingdom, by election of the people. All parliamentary measures, before passing into law, must be approved of by both Houses, and have the sanction of the sovereign. The executive government is vested in the Crown and Cabinet Council, of which the Prime Minister is the head.

The established religion of England is Protestant Episcopacy, —but complete freedom is allowed to all other forms of religious worship. There are two archbishops, those of Canterbury and York, and twenty-six bishops. The Archbishop of Canterbury is the primate of all England.

The Saxon race prevails throughout England, especially in the eastern division; a mixed Norman and Saxon in the west, and the *aboriginal Celtic* population throughout Wales, where

the Welsh language is still spoken. In their dealings they are fair and honourable, and the character of an English merchant is held in universal respect for integrity, liberality, and intelligence. All the arts that are conducive to the comfort and elegance of life are cultivated with the greatest success. In every department of science and literature, England can boast of the most illustrious names. To her Newton, her Bacon, her Milton, her Shakspeare, few equals and no superiors can be found in ancient or in modern times.

#### EXERCISES.

What are the boundaries of England and Wales? What is the superficial area? Name the counties in England. Name the counties in Wales. What are the principal towns in Northumberland? Of Cumberland? Of Durham? &c. Where is North Shields, Workington, Yarmouth, Chepstow, Shrewsbury, Brentford, Blackburn, Stockport, Liverpool, Stockton, Brighton, Bridgenorth, Whitehaven, Chichester, Chelmsford, Eton, Bristol, Buxton, Boston, Leeds, Manchester, Harwich, Launceston, Morpeth, Portsmouth, Leominster, Lynn Regis, Kidderminster, Maidstone, Truro, St Neots, Wellington, London, Tewkesbury, Ware, Ipswich, Exeter, South Shields, Hastings, Chatham, Plymouth, Dover? &c.

What are the principal towns in Flintshire? In Denbighshire, in Carnarvonshire? &c.

Where is Welshpool, Bala, Builth, Holywell, Presteign, Hay, Wrexham, St Davids, Bangor, Kidwelly, St Asaph, Haverfordwest, Llandaff, Aberystwith, Dolgelly, Swansea? &c.

What are the principal islands? What are the towns of Man? Where is St Pierre? Where is Cowes? Where is St Helier? Where is Newport? Point out the islands on the map. Name the bays, and their situation. Point them out on the map. Name the sandbanks, and their situation. Name the capes. Point them out. What are the principal mountains, and where are they situated? What are the principal lakes? What are the principal rivers? Where is Milford Haven? Where is Flamborough Head? What is the course of the Tyne? Of the Thames? Of the Great Ouse? Of the Medway? Of the Severn? Of the Trent? Where is Plinlimmon, Scafell, Start Point, Spurn Head, St Goven's Head, Land's End, Whernside, Cader-Idris, Arran-Fowddy, Portland Point? &c.

Name the colonies and foreign possessions of Great Britain in Europe. Name her possessions in Asia; in Africa; in North America; in the West Indies; in South America; in Australasia.

Between what degrees of latitude and longitude is England situated? What are its length and breadth? What is its general aspect? What appearance does the tendency to moisture in the climate give to the plains? What is the appearance of the cultivated districts? What is remarkable in the scenery of Wales? What is the principal feature in the scenery of Cumberland and Westmoreland?

What difference is observable in the climates of the western and eastern counties? What is the consequence of this difference of climate? In what state is agriculture in England? What is the *general quality of the soil*? In what do her principal mines consist? In what state are the manufactures and commerce of England? What are her largest manufactures? What is the annual *value of British exports and imports*? What is the extent of mer-

cantile shipping? What is the estimated value of real property? What is the amount of the annual government revenue? What is the amount of the national debt?

What has materially tended to the prosperity of England? What great canals have been constructed since the middle of the last century? At what expense was the Grand Junction Canal completed? To what extent has railway communication been carried? How many passengers are carried by railways every year? What is the annual sum which railways receive from their traffic? What is done by the electric telegraph?

What is the form of the British constitution? How is the authority of the queen restrained? What is the established religion of England? What is the number of archbishops and bishops? Which of these is primate of all England?

What is peculiar in the manners of the English? What are their favourite amusements? By what qualities are they characterized in their mercantile dealings? Is much attention paid to the arts in England? Can this country boast of many illustrious names in science and literature?

### DESCRIPTIVE TABLE.

[In this and the following Tables we have endeavoured to give the most approved pronunciation of the names of places, by marking the accented syllable, and in words where the pronunciation differs materially from the orthography, by adapting the spelling (within parentheses) as nearly as possible to the sound; while in other cases, the silent letters, with the exception of the final e, are printed in *italics*.]

**ABERGAVERN'NY** (pr. Abergai-n'y), an ancient town in Monmouthshire. Pop. 4621.

**Aberyst'with** (Aberust'ith), a seaport in Cardiganshire, at the mouth of the Ystwith. Pop. 5641.

**Ab'ingdon**, a town in Berkshire, on the Thames. Pop. 5680.

**Ac'cington**, a town of Lancashire, the centre of the Manchester cotton-printing business. Pop. 19,688.

**Al'bens, St.**, a town in Herts, near the site of the ancient *Verulam*. Pop. 7675.

**Al'bens Head, St.**, a cape on the coast of Dorset.—50° 34' N. lat., 2° 3' W. long.

**Al'derney**, an island in the English Channel, famous for a breed of small cows. Pop. 4932.—49, 41 N. 2, 15 W.

**Al'dershot**, a village, military town, and camp in Hampshire. Pop. 16,720 p.\*

**Aln'wick** (An'nik) a town of Northumberland, near which is Alnwick Castle, the magnificent seat of the Duke of Northumberland. Here Mal-

colm Canmore, King of the Scots, was killed in 1093; and here his great-grandson, William the Lion, King of the Scots, was taken captive in 1174. Pop. 7369.

**Am'bleside**, a town of Westmoreland, near Lake Windermere. P. 1603.

**Ames'bury**,† a town in Wilts, on the Avon, the birthplace of Addison. Pop. 1138 p.

**Am'blech** (Am'luck), a seaport in Anglesea, with a harbour excavated from the slate rock, capable of containing 30 vessels of 200 tons. Pop. 3207.—53, 25 N. 4, 20 W.

**An'dover**, a town in Hampshire, on the Ande. Pop. 5430.

**An'glesea**, an island and county of Wales, joined to the mainland by the Menai Suspension Bridge and the Britannia Tubular Bridge. It possesses rich mines of copper and lead, and is noted as an ancient seat of the Druids. Pop. 54,609.—53, 18 N. 4, 20 W.

**Ap'pleby**, the county town of Westmoreland, on the Eden. Pop. 960.

**Ar'ran-Fowddy** (Vou'thee), a moun-

\* The letter p. annexed to the number, indicates that the population given is that of the parish in which the town is situated.

† *Bury* is pronounced as if written *berry*.

tain in Merionethshire, Wales, 2955 feet high.

Arundel, a town in Sussex, on the Arun. Pop. 2498.

Asaph, St, an ancient city and bishop's see in Flint, founded about 550 by St Kentigern or Mungo, the founder of Glasgow, in Scotland. Pop. 2063.

Ashburton, a town in Devonshire. Pop. 3062.

Ashby-de-la-Zouch (Zooch), a town in Leicester, near the confines of Derbyshire. Pop. 3772.

Ash-ton-under-Lyne, a manufacturing town in Lancashire. Pop. 34,886.

Athelney, once an island, now a marshy tract in Somersetshire, between the rivers Tone and Parret, famous as the refuge of King Alfred the Great in 878.

Avon, a river which rises on the borders of Gloucestershire, flows through Wiltshire, and, passing Bath and Bristol, falls into the Severn 8 miles below the latter city;—a river which rises in the north-west of Northamptonshire, and, flowing through Warwickshire and Worcestershire, joins the Severn at Tewkesbury;—a river in Hants, which flows into the English Channel;—a river in N. Wales, which falls into Cardigan Bay;—another in S. Wales, which flows into Swansea Bay.

Aylesbury, a town in Buckinghamshire. Pop. 27,090.

BA'LA, a town in Merionethshire, situated at the extremity of a lake called Bala-Pool, through which flows the Dee.

Banbury, a town in Oxfordshire, on the Cherwell. Pop. 10,216.

Ban'gor, a city and bishop's see in Carnarvon, near the N. entrance of the Menai Strait. Pop. 6738.

Barnsley, a manufacturing town in the W. R. of Yorkshire, with extensive iron-foundries. Pop. 17,890.

Barnstaple, a town in Devonshire, on the Taw. Pop. 10,743.

Barrow-in-Furness, a seaport and manufacturing town of Lancashire, noted for its rapid growth and extension. Pop. estimated in 1868 at 20,000.—54, 6 N. 8, 12 W.

Bath, the *Aquæ Solis* of the Romans, a beautiful city, the capital of Somersetshire. Pop. 52,528.

Beachy Head, a promontory on

the coast of Sussex,—the highest land on the S. coast of Britain.—50, 44 N. 0, 14 E.

Beaumaris (Boma'ris), a seaport, the county town of Anglesea, situated on the Menai Strait. Pop. 2558.—53, 17 N. 4, 5 W.

Bedfordshire,\* an inland county, large numbers of the female population of which are employed in the strawplait and thread-lace manufactures. Pop. 185,287.

Bedford, the county town of Bedfordshire, on the Ouse, distinguished for its charitable institutions. At Elstow, near this, John Bunyan, the author of the Pilgrim's Progress, was born in 1628. Pop. 13,413.

Bees' Head, St, a cape on the W. coast of Cumberland.—54, 31 N. 3, 40 W.

Bel'per, a town in Derbyshire, on the Derwent, noted for its cotton-mills. Pop. 9509.

Berkshire or Berks, a county separated by the Thames from those of Oxford and Buckingham. At Wantage, in Berkshire, King Alfred the Great was born in 849. P. 176,256.

Berwick, a fortified town near the mouth of the Tweed. Though assigned to Northumberland, it enjoys the privileges of a county by itself. In the wars between England and Scotland, its importance, as a key to both kingdoms, rendered this town and its neighbourhood the scene of frequent contest and bloodshed. Pop. 13,265.—55, 46 N. 2, 0 W.

Bev'erley, a handsome town in the E. R. of Yorkshire, near the Hull. Pop. 10,868.

Bewdley, a town in Worcestershire, on the Severn. Pop. 7084.

Bilston, a town in Staffordshire, in the vicinity of great coal and iron mines. Pop. 24,864.

Bingley, a town in the N. R. of Yorkshire, on the Aire, with considerable worsted manufactures. Pop. 5238.

Birkenhead, a seaport of Cheshire, on the Mersey, opposite Liverpool, recently become of considerable importance. P. 51,649.—53, 24 N. 3, 2 W.

Birmingham, a flourishing town in Warwickshire, celebrated for its immense hardware manufactures. Pop. 296,076.—52, 28 N. 1, 53 W.

Blackburn, a manufacturing town in Lancashire. Pop. 63,126.

\* *Shire*, when joined to the name, is pronounced short, as if written *shir*.

**Bod'min**, the county town of Cornwall, with a manufacture of serges. Pop. 6381.

**Bol'ton**, a large manufacturing town in Lancashire. Pop. 70,395.

**Bos'ton**, a seaport in Lincolnshire, situated on both sides of the Witham, a place of considerable trade. Pop. 17,893.—52, 59 N. O, 2 W.

**Bos'worth**, Market, a town in Leicestershire, near which, in 1485, was fought a memorable battle between Richard III. and the Earl of Richmond, afterwards Henry VII., in which Richard fell. Pop. 997.

**Brad'ford**, a manufacturing town in the W. R. of Yorkshire, on the Aire. Pop. 106,218.—A town in Wilts, on the Avon, noted for its manufacture of fine cloths. Pop. 4291.

**Breck'nockshire**, a mountainous county of South Wales. Pop. 61,627.

**Breck'nock** or **Bre'con**, the county town of Brecknockshire, at the confluence of the Usk and Honddu. Pop. 5639.

**Breck'nock Beacon**, a mountain in Brecknockshire, 2862 feet high.

**Brent'ford**, a town in Middlesex, on the Thames, divided into Old and New Brentford. Pop. 9521.

**Bride's Bay**, St, in St George's Channel, on the W. of Pembroke.

**Bridge'north**, a town in Shropshire, intersected by the Severn. P. 7699.

**Bridge'water**, a town in Somersetshire, on the Parret. At Sedgemoor, in its neighbourhood, the Duke of Monmouth was defeated by the forces of King James II. in 1685. P. 11,320.

**Brid'lington**, a town in the E. R. of Yorkshire, situated on the bay of the same name, having Flamborough Head to the N. E. Pop. 5775.

**Brid'port**, a seaport in Dorsetshire, on the English Channel. Pop. 7719.—50, 44 N. 2, 45 W.

**Brigh'ton**, a seaport in Sussex,—a favourite residence of George IV., and a place of fashionable resort for sea-bathing. Pop. 87,317.—50, 50 N. O, 9 W.

**Bris'tol**, a seaport in Gloucestershire, formerly second only to London, though now surpassed by Liverpool, is situated on the Lower Avon, near the head of the channel which bears its name. Its mineral waters are much esteemed. Pop. 154,093.—51, 27 N. 2, 36 W.

**Bris'tol Chan'nel**, an estuary stretching between the coast of Wales and the counties of Somerset and Devon.

**Buck'inghamshire** or **Bucks**, a fertile midland county. Pop. 167,993.

**Buck'ingham**, the county town of Bucks, on the Great Ouse. P. 7626.

**Builth** (Beelth), a town in Brecknock, on the Wye. Pop. 1110 p.

**Bun'gay**, a town in Suffolk, on the Waveney, with a considerable trade. Pop. 3805.

**Burn'ley**, a town in Lancashire, with manufactures of woollen and cotton. Pop. 28,700.

**Burs'lem**, a town in Staffordshire, a principal seat of the potteries. Pop. 17,821.

**Bur'ton**, an ancient town in Staffordshire, on the Trent, over which is a bridge of 37 arches;—it is famous for its ale. Pop. 18,671.

**Bury** (Ber'ry), a manufacturing town in Lancashire, on the Irwell. Pop. 37,563.

**Bury St Edmunds**, a town in Suffolk, on the Lark, with a great corn and cattle market. Its abbey was one of the richest in Britain. Pop. 13,318.

**But'termere**, a small lake in Cumberland.

**Bux'ton**, a town in Derbyshire, celebrated for its mineral springs. Pop. 1877.

**CA'DER-I'DRIS**, a mountain in Merionethshire, 2959 feet high.

**Calne**, an ancient town in Wiltshire. Pop. 5179.

**Cam'bridgeshire** (Caim), an inland county in the S. E. of England. Pop. 176,016.

**Cam'bridge**, the capital of Cambridgeshire, on the Cam or Granta, the seat of a celebrated university, containing fourteen colleges and three halls. P. 26,361.—52, 13 N. O, 7 E.

**Can'terbury**, the *Durovernum* of the Romans, a city in Kent, on the Stour, and the metropolitan see of all England. It has a magnificent cathedral, in which Thomas à Becket was murdered before the altar in 1170. His shrine here was for three centuries one of the great pilgrimages of Christendom. Pop. 21,824.—51, 17 N. 1, 4 E.

**Car'diff**, the county town of Glamorganshire, on the Taafé. In the castle of Cardiff, Robert, duke of Normandy, was imprisoned by his brother, Henry I. Pop. 32,954.—51, 29 N. 3, 11 W.

**Car'diganshire**, a maritime county of South Wales. Pop. 72,245.

**Car'digan**, the county town of Car-

diganshire, on a steep bank near the mouth of the Teify. Pop. 8543.

Car'digan Bay, a large bay on the W. of Cardiganshire.

Carlisle, the capital of Cumberland, and a bishop's see, on the Eden, with an ancient castle and cathedral; it was formerly surrounded by walls, for defence against the Scots. Pop. 29,417.—54, 53 N. 2, 56 W.

Carmar'thenshire, a fertile county in South Wales. Pop. 111,796.

Carmar'then, a flourishing seaport, and the county town of Carmarthenshire, on the Towy. Pop. 9993.

Carmar'then Bay, in the Bristol Channel, S. of Carmarthenshire.

Carnar'vonshire, a county of North Wales. Pop. 95,694.

Carnar'von, the county town of Carnarvonshire, on the Menai Strait; its splendid castle, now in ruins, was built by Edward I. Pop. 8512.

Carnar'von Bay, in St George's Channel, washes the coast of Anglesea and Carnarvon.

Castletown, a considerable town on the S. coast of the Isle of Man. Pop. 2373.

Chard, a town in Somersetshire. Pop. 2276.

Chat'ham, a town in Kent, on the Medway, one of the principal naval stations in the United Kingdom. Pop. 86,177.—51, 23 N. 0, 35 E.

Chelms'ford, the county town of Essex, on the Chelmer. Pop. 5513.

Chel'sea, a town of Middlesex, on the Thames, now a suburb of London, where is a grand national asylum, called Chelsea Hospital, for decayed and wounded soldiers. Pop. 63,439.

Chelt'enham (Chelt'nham), a handsome town in Gloucestershire, much frequented for its mineral springs and for the picturesque beauty of its scenery. Pop. 39,693.—51, 54 N. 2, 4 W.

Chep'stow, a seaport in Monmouthshire, on the Wye, with the stately remains of an ancient castle. Pop. 3364.

Chesh'ire, a county bordering on Wales, celebrated for its cheese and its large mines of rock-salt. Pop. 505,428.

Ches'ter, on the Dee, the *Deva* of the Romans, the capital of Cheshire, a bishop's see, and a city interesting for its antiquities. Pop. 31,110.—53, 12 N. 2, 54 W.

Ches'terfield, a town in Derbyshire, on the Rother. Pop. 9836.

Che'viot, a range of hills between Scotland and Northumberland; the highest is 2668 feet.

Chi'chester, an ancient city and bishop's see, the capital of Sussex, situated on an arm of the sea. Pop. 8059.—50, 50 N. 0, 46 W.

Chil'tern Hills, a ridge of chalky hills in the counties of Buckingham, Hertford, and Oxford.

Chip'penham, a town in Wilts, on the Avon, with manufactures of fine cloths. Pop. 7075.

Chor'ley, a thriving manufacturing town in Lancashire. Pop. 15,013.

Chorl'ton-upon-Med'lock, a township in the parish of Manchester; in 1801 it contained only 675 inhabitants, and in 1861 no fewer than 44,795.

Christ'church, a town in Hants, with a trade in knit silk stockings and watch-springs. Pop. 9368.

Ci'rencester (Ci'cester), a town in Gloucestershire, on the Churn, a great mart for wool. Pop. 6336.

Clif'ton, a suburb of Bristol, Gloucestershire, celebrated for its hot-springs, the salubrity of its air, and its beautiful scenery. Pop. 21,375 p.

Cli'theroe, a manufacturing town in Lancashire, on the Ribble. Pop. 10,864.

Cock'ermouth, a town in Cumberland, at the confluence of the Cocker and Derwent. Pop. 7057.

Col'chester, a town in Essex, on the Colne, famous for its oyster fisheries. Pop. 23,809.—51, 53 N. 0, 53 E.

Colne, a manufacturing town in Lancashire. Pop. 6315.

Cong'leton, a handsome town in Cheshire, with manufactures of silk, cotton, and leather. Pop. 12,344.

Con'way, a river of Wales, forming the boundary between the counties of Carnarvon and Denbigh, and falling into the Irish Sea at Conway. The vale through which this river flows is celebrated for its beauty and fertility.

Con'way or Abercon'way, a town in Carnarvon, with the ruins of a magnificent castle. Pop. 2523.

Coq'uet, an islet off the coast of Northumberland at the mouth of the river of the same name.

Corn'wall, a county occupying the south-western extremity of Britain, and famous for its mines of tin and copper. Pop. 369,390.

Cov'entry, an ancient city in War-



wick, celebrated for its manufactures of watches and ribands. Pop. 41,647.—52, 24 N. 1, 30 W.

Cowes, West, a seaport on the N. coast of the Isle of Wight, beautifully situated on the Medina. Near this is Osborne House, a marine residence of the Queen. Pop. 4591.—50, 46 N. 1, 18 W.

Cricklade, a town in Wilts, on the Thames, which is navigable thus far. Pop. 36,893.

Croydon, a town in Surrey, communicating with the metropolis by a canal and by railway. Pop. 20,325.

Cumberland, one of the northern counties, famed for its lakes and picturesque mountain-scenery. Pop. 205,276.

DARLINGTON, a town in Durham, with considerable trade and manufactures. Pop. 15,781.

Dartford, a town in Kent, where the first paper-mill in England was erected by Sir John Spielman, in the reign of Elizabeth. Pop. 5314.

Dartmouth, a seaport in Devonshire, near the mouth of the Dart. Pop. 4444.—50, 21 N. 3, 33 W.

Daventry, a town in Northamptonshire, near the source of the Avon and Nen. Pop. 4124.

Da'vids, St, a village in Pembroke, and a bishop's see. Pop. 2199 p.

David's Head, St, a cape on the W. of Pembroke.—51, 53 N. 5, 18 W.

Deal, a town on the E. coast of Kent; the fine roadstead, called the Downs, extends in front of the town. Pop. 7531.—51, 13 N. 1, 24 E.

Dee, a river which flows through Bala-Pool, in Merioneth, and falls into the Irish Sea, 15 miles below Chester.

Denbighshire, a county in North Wales. Pop. 100,778.

Denbigh, the county town of Denbighshire, finely situated on an eminence overlooking the fertile vale of Clwyd. Pop. 5946.

Deptford, a town in Kent, on the Thames, with ship-building yards and fine wet docks. Pop. 37,834.—51, 29 N. 0, 8 W.

Derbyshire, a mountainous county in the centre of England, noted for its picturesque scenery, its lead mines, and mineral waters. Pop. 339,327.

Derby, the county town of Derbyshire, on the Derwent. Here the first English silk-mill was erected in 1718. Here, in 1745, Prince Charles Edward stopped in his march upon

London, and turned his steps back towards Scotland, where he was soon afterwards defeated at Culloden. Pop. 43,091.—52, 55 N. 1, 28 W.

Derwentwater or Lake of Keswick, a very picturesque lake in Cumberland.

Devizes, a town in Wilts, on the Kennet and Avon Canal. Pop. 6638.

Devonport, a seaport in Devonshire, adjoining Plymouth, of which it is considered a suburb. Pop. 64,783.—50, 24 N. 4, 12 W.

Devonshire, a picturesque and fertile county in the W. of England, noted for its mild and salubrious climate. Pop. 584,373.

Dewsbury, a manufacturing town in the W. R. of Yorkshire, pleasantly situated on the Calder. Pop. 18,148.

Dolgelly, the county town of Merionethshire, situated on the Avon, at the base of Cader-Idris. Pop. 2217.

Doncaster, a town in the W. R. of Yorkshire, celebrated for its horse-races. Pop. 16,406.

Dorchester, the county town of Dorsetshire, pleasantly situated on the Frome. Pop. 6823.

Dorking, a town in Surrey, famous for its fowls. Pop. 4061.

Dorsetshire, a county in the S. W. of England, noted for its freestone quarries. Pop. 188,789.

Douglas, a seaport on the S. E. coast of the Isle of Man, with an excellent harbour. Pop. 12,511.—54, 10 N. 4, 27 W.

Do'ver, a seaport in Kent, about 23 miles from Calais in France, between which packets and steam vessels regularly sail. Pop. 25,325.—51, 7 N. 1, 19 E.

Downs, a famous roadstead between the Goodwin Sands and Deal in Kent, the usual rendezvous for outward-bound fleets.

Droitwich, a town in Worcester, famous for its brine springs, from which is manufactured a fine white salt. Pop. 7086.

Dudley, a town in Worcester-shire, surrounded by Staffordshire. Its neighbourhood abounds in minerals, and the iron trade is carried on to a considerable extent. Pop. 44,975.—52, 30 N. 2, 5 W.

Duk'infield, a town of Stockport, Cheshire, on the Tame. Pop. 15,024.

Dungeness, a promontory on the



coast of Kent, in the English Channel.—50, 55 N. 0, 58 E.

Duns'table, a town in Bedfordshire, noted for its manufacture of strawplait. Pop. 4470.

Dur'ham, a county in the N. E. of England, with extensive collieries. Pop. 508,666.

Dur'ham, the capital of the county, a city and bishop's see, with a university and an ancient cathedral, beautifully situated on the Wear. At Neville's Cross, in the neighbourhood, the Scots were defeated and their king, David II., taken prisoner, in 1346. Pop. 14,088.—54, 46 N. 1, 34 W.

ED'DYSTONE, a reef of rocks in the English Channel, 14 miles S. W. from Plymouth; on the highest is a famous lighthouse, erected in 1759.—50, 11 N. 4, 16 W.

E'den, a river which rises in Westmoreland, and, flowing through Cumberland, falls into the Solway Frith below Carlisle.

Edge'hill, a village in Warwick, near which the first battle in the civil wars between Charles I. and the Parliament was fought, in 1642.

E'ly, a city in Cambridgeshire, situated in a marshy district on the Ouse, called the Isle of Ely. Here is a large and beautiful cathedral. Pop. 7428.

Ep'som, a town in Surrey, noted for its mineral springs. Pop. 4890.

Es'sex, a county on the E. coast, famed for its agriculture and its dairies. Pop. 404,851.

E'ton, a town in Bucks, on the Thames, celebrated for its school called Eton College, founded by Henry VI. in 1441. Pop. 2840.

Eve'sham, an ancient town in Worcestershire, situated on the Avon, in a beautiful vale. Here, in 1265, Simon de Montford, earl of Leicester, was defeated and slain by the forces of Prince Edward, afterwards King Edward I. Pop. 4680.

Exe, a river which rises in Exmoor Forest, Somersetshire, and, flowing through Devonshire, falls into the English Channel at Exmouth.

Ex'eter, the capital of Devonshire, on the Exe, a fine city and a bishop's see. Pop. 41,749.—50, 42 N. 3, 32 W.

Ex'mouth, a town in Devonshire, beautifully situated at the mouth of the Exe, celebrated as a watering place and for the mildness of its climate. Pop. 5228.

FAL'MOUTH, a seaport in Cornwall, with a noble harbour. P. 5709.

Farn'ham, a town in Surrey, on the Wey, the birthplace of William Cobbett, and noted for its hop plantations. Near it is the celebrated Aldershot camp. Pop. 3926.

Fern and Sta'ples Isles, two dangerous groups of islets off the coast of Northumberland, on which are two lighthouses.—55, 87 N. 1, 87 W.

Fish'guard, a seaport in Pembroke-shire. Pop. 1593.

Flam'borough Head (burro), in Yorkshire, a bold and lofty cape, nearly 500 feet high, with a lighthouse.—54, 7 N. 0, 4 W.

Fleet'wood, a seaport in Lancashire, at the mouth of the Wyre. Pop. 3834.

Flint'shire, a small county in North Wales. Pop. 69,737.

Flint, a town of Flintshire, on the estuary of the Dee. Pop. 3428.

Flod'den, a village in Northumberland, 5 miles north of Wooler. Here a great battle was fought between the English and Scots in 1513, in which James IV., the king of the Scots, and many of his nobility were slain.

Folk'stone, a seaport in Kent, the birthplace of Dr Harvey, who discovered the circulation of the blood. Pop. 8507.—51, 5 N. 1, 10 E.

Fore'land, North and South, two promontories on the east coast of Kent.

Foth'eringay, a village in Northamptonshire, in the castle of which Mary Queen of Scots was beheaded in 1587. Pop. 246 p.

Fow'ey, a seaport in Cornwall, with a fine harbour and an extensive trade in the pilchard-fishery. Pop. 1429 p.

Frome, a town in Somersetshire, on the Frome, noted for its manufacture of woollen cloths. Pop. 9522.—51, 14 N. 2, 20 W.

GAINS'BOROUGH, a town in Lincolnshire, on the Trent, with a considerable foreign and inland trade. Pop. 6320.

Gates'head, a town in Durham, forming a suburb to Newcastle. Pop. 33,587.

Glamor'ganshire, a fertile county of South Wales, enriched by vast mines both of iron and of coal. Pop. 317,752.

Gloucestershire (Glos'ter), a coun-

ty in the W. of England, famous for its dairy produce. Pop. 86,770.

Gloucester, an ancient city, and a bishop's see, the capital of the county, situated on the Severn. It has a good cathedral, and carries on considerable trade. Pop. 16,512.—51, 52 N. 2, 14 W.

God'alming, a town in Surrey, on the Wey. Pop. 2321.

Goodwin Sands, a large and dangerous sandbank off the east coast of Kent.

Goole, a thriving town in the W. R. of Yorkshire, on the Ouse. Pop. 5850.—53, 40 N. 0, 52 W.

Gosport, a seaport in Hampshire, on the west side of Portsmouth harbour, with an extensive trade. Pop. 7789.

Gov'en's Head, St, a cape on the S. of Pembrokeshire.—51, 86 N. 4, 55 W.

Grant'ham, a town in Lincolnshire, on the Witham. Sir Isaac Newton was born at Woolsthorpe, in its neighbourhood, in 1642. Pop. 11,121.

Graves'end, a seaport in Kent, near the mouth of the Thames, 28 miles from London Bridge. Pop. 18,782.—51, 27 N. 0, 22 E.

Green'wich, a town in Kent, on the Thames, about 5 miles below London, famous for its Royal Observatory, and its noble hospital for superannuated seamen. Pop. 139,436.—51, 28 N. lat.

Grimsby, Great, a seaport in Lincolnshire, near the mouth of the Humber, with extensive new docks. Pop. 15,060.

Guern'sey, an island in the English Channel, near the coast of France, 9 miles long by 6 broad. The S. and part of the E. coast is a continued cliff, 270 feet high. Pop. 29,804.—49, 26 N. 2, 37 W.

Guild'ford, the county town of Surrey, on the Wey,—once a residence of the English kings. Pop. 8020.

HALIFAX, a thriving town in the W. R. of Yorkshire, noted for its woollen manufactures. Pop. 37,014.—53, 44 N. 1, 52 W.

Hamp'shire, Hants, or Southamp'ton, a county in the S. of England. Pop. 481,815.

Hamp'stead and High'gate, two large and beautiful villages, about 6 miles north of London, surrounded by numerous country seats.

*Hampton and Hampton Court,*

two villages in Middlesex. The latter contains an interesting royal palace.

Harborough, Market, a town in Leicestershire, on the Welland, which separates it from Northamptonshire. Pop. 2302.

Har'lech (Har'ley), a town on the W. coast of Merioneth, once a place of consequence, now only remarkable for its ancient castle.

Har'rowgate, a town in the W. R. of Yorkshire, 21 miles W. from York, famous for its mineral waters. Pop. 4787.

Hart'land Point, a promontory in Devon, on the Bristol Channel.—51, 1 N. 4, 81 W.

Har'lepool, a seaport in Durham, on the Tees, with extensive docks. Pop. 12,245.—54, 41 N. 1, 12 W.

Har'wich, a seaport in Essex, the seat of a royal dockyard, and a favourite watering-place. Pop. 5070.—51, 56 N. 1, 17 E.

Hast'ings, an ancient town in Sussex, where Harold was defeated by William the Conqueror in 1066. It is now a fashionable watering-place. Pop. 22,910.—50, 51 N. 0, 86 E.

Haver'fordwest (Har'fordwest), a town in Pembrokeshire, on the Cleddy, near its entrance into Milford Haven. Pop. 7019.—51, 47 N. 4, 56 W.

Hay, a town in Brecknockshire, on the Wye. Pop. 1318.

He'lier, St, a handsome town, the capital of the island of Jersey, situated on the E. side of St Aubin's Bay. Pop. 29,528 p.—49, 11 N. 2, 7 W.

Hel'stone, a town in Cornwall, on the Looe, with a good harbour. Pop. 8497.

Helvel'lyn, a mountain on the borders of Cumberland and Westmoreland, 3055 feet high.

Hen'ley, a town in Oxfordshire, on the Thames. Pop. 3419.

Her'efordshire, a fertile and well-cultivated county in the W. of England, famous for its cider. Pop. 123,712.

Her'eford, the capital of Herefordshire, and a bishop's see, on the banks of the Wye. Pop. 15,585.—52, 3 N. 2, 42 W.

Hert'fordshire or Herts, a midland county, which carries on a great trade in malt. Pop. 173,280.

Hert'ford, the county town of Hertfordshire on the Lea; it has one of the largest corn-markets in the kingdom. Pop. 6769.—51, 47 N. 0, 5 W.

Hex'ham, an ancient town in Northumberland, on the Tyne, where

are many Roman and other antiquities. Pop. 4655.

Holt, a town in Denbighshire, on the Dee. Pop. 1008.

Holyhead, a seaport situated in a small island off Anglesea, from which the Irish packets sail. Pop. 6193.—53, 19 N. 4, 39 W.

Holy Island, or Lindisfarne, on the coast of Northumberland, about 9 miles in circumference, belonging to the county of Durham; it was anciently the seat of a bishopric, which extended over the south-east of Scotland and the north-east of England. P. 935.—55, 40 N. 1, 43 W.

Holywell, a town in Flintshire, with considerable manufactures of cotton, copper, and brass. In the neighbourhood is a rich lead mine. Pop. 5335.

Honiton, a town in Devonshire, on the Otter. Pop. 3301.

Horncastle, a trading town in Lincolnshire, on the Bain. Pop. 4846.

Horsham, a town in Sussex, on the Adur. Pop. 6747.

Huddersfield, a town in the W. R. of Yorkshire, where the woollen manufacture is extensively carried on. Pop. 34,877.

Hull or Kingston-upon-Hull, a seaport in the E. R. of Yorkshire, on the Humber, at the mouth of the Hull. It carries on a great trade. Pop. 97,661.—53, 44 N. 0, 20 W.

Humber, a river, or rather estuary, formed by the junction of the Ouse, Aire, and Trent, and separating York from Lincoln.

Huntingdonshire, an inland county possessing numerous dairies. Pop. 64,250.

Huntingdon, the county town of Huntingdonshire, on the Ouse. Here Oliver Cromwell was born. Pop. 6254.

Hythe, a seaport in Kent. P. 21,367.

ILCHESTER, a town in Somersetshire, the birthplace of Roger Bacon. Pop. 781 p.

Ingleborough, a mountain in Yorkshire, 2368 feet high.

Ipswich, the county town of Suffolk, on the Orwell, the birthplace of Cardinal Wolsey. Pop. 37,950.—52, 3 N. 1, 9 E.

Islington, in Middlesex, formerly a pleasant country town, now united to London. Pop. 155,341 p.

Itchen, a river in Hants, which runs into Southampton Water.

Ives, St, a seaport of Cornwall, on the Bay of St Ives. Here the pil-

chard-fishery is carried on to a great extent. Pop. 10,353.—A town in Huntingdon, on the Ouse. Pop. 3321.

JERSEY, a fertile island in the English Channel, near the coast of France. It is 12 miles long by 7 in breadth, and possesses all the advantages of a delightful climate, a rich soil, and a considerable commerce. Pop. 55,613.—49, 14 N. 2, 10 W.

KEIGHLEY, a thriving manufacturing town in the W. R. of Yorkshire, on the Aire. Pop. 15,005.

Ken'dal, a flourishing town in Westmoreland, long celebrated for its woollen manufactures. Pop. 12,029.—54, 20 N. 2, 45 W.

Kenilworth, a town in Warwickshire, celebrated for its magnificent castle, now in ruins, where Dudley, earl of Leicester, entertained Queen Elizabeth for 17 days. Pop. 3013.

Kent, a maritime county in the S. E. of England, famous for the culture of hops. Pop. 733,887.

Keswick, a town in Cumberland, beautifully situated on Derwent water. Pop. 2610.

Kettering, a town in Northampton, with considerable trade. P. 5498.

Kew, a pretty village on the Thames, with a royal palace and extensive gardens. Pop. 1099 p.

Kidderminster, a town in Worcester, on the Stour, noted for its manufacture of carpets. Pop. 15,399.

Kidwelly, a town in Carmarthenshire, on Carmarthen Bay. P. 1652 p.

Kingston, an ancient town in Surrey, on the Thames. Pop. 9790.

Kirkby-Lonsdale, a neat town in Westmoreland. Pop. 1727.

Knaresborough, a town in the W. R. of Yorkshire, on the Nidd. Pop. 5402.

Knighton, a town in Radnorshire, on the Teme, which separates Wales from Shropshire. Pop. 1655.

LAMBETH, a large town in Surrey, forming the western extremity of that part of the metropolis which lies on the S. bank of the Thames. Pop. 294,883.

Lampeter, a town in Cardiganshire, near valuable lead mines. Here is St David's College, founded in 1822 for the education of the Welsh clergy. Pop. 989.

Lancashire, an extensive county in the N. W. of England, the principal seat of the cotton manufacture and of the American trade. Pop. 2,429,440.

**Lancaster**, the county town of Lancashire, on the Lune, famous for its noble castle. Pop. 16,005.—54, 3 N. 2, 47 W.

**Land's End**, a lofty headland in Cornwall, the S. W. extremity of England.—50, 5 N. 5, 42 W.

**Lanncoston** (**Lans'ton**), a town in Cornwall, on the Tamar. Pop. 5140.

**Leam'ington**, a town in Warwickshire, pleasantly situated on the Leam, and celebrated for its mineral waters. Pop. 17,958.

**Lea'bury**, a town in Herefordshire, with manufactures of ropes and sack-ing. Pop. 3263.

**Leeds**, a town in the W. R. of Yorkshire, the greatest seat of the woollen manufacture in the kingdom. Pop. 207,165.—53, 48 N. 1, 32 W.

**Leek**, a town in Staffordshire, with extensive manufactures of silks, twists, etc. Pop. 10,045.

**Leicestershire** (**Les'ter**), an inland county, famed for its breed of sheep. Pop. 237,412.

**Leicester** (**Les'ter**), the county town of Leicestershire, noted for its manufacture of worsted hosiery. Pop. 68,056.—52, 39 N. 1, 7 W.

**Leight'on-Buz'ard**, a town in Bedfordshire, on the Ouse, with considerable manufactures of strawplait. Pop. 4330.

**Leominster** (**Lem'ster**), a town in Herefordshire, situated on the Lugg. It has an excellent market for wool, cider, hops, and wheat. Pop. 5658.

**Lew'es**, a town in Sussex, on the Ouse, which is navigable for some miles above it. Here King Henry III. was defeated and made prisoner by his barons in 1264. Pop. 9716.

**Lich'field**, an ancient and elegant city in Staffordshire, with a splendid cathedral; the birthplace of Dr Johnson and of Garrick. Pop. 6893.

**Lin'colnshire**, a county on the E. coast of England, noted for its fens. Pop. 412,246.

**Lin'coln**, the *Lincoln* of the Romans, a city and bishop's see in Lincolnshire, on the Witham, with a magnificent Gothic cathedral, in which is a large bell, called Tom of Lincoln. Pop. 20,969.—53, 14 N. 0, 24 W.

**Lis'keard**, a town in Cornwall. Pop. 6585.

**Liv'erpool**, a seaport in Lancashire, situated at the mouth of the Mersey. It has made a most rapid progress in commercial prosperity, and is now

the chief seat of the trade with Ireland, America, and the W. Indies. It has some fine public buildings, 18 miles of quays, and wet docks covering upwards of 245 acres. Pop. 443,938.—53, 24 N. 2, 59 W.

**Lix'ard Point**, in Cornwall, the most southerly promontory of England.—49, 58 N. 5, 12 W.

**Llandaff**, a village and bishop's see in Glamorganshire, with the ruins of an ancient cathedral. Pop. 6585 p.

**Llanell'y**, a seaport in Carmarthenshire, near the mouth of the Burry, with a large trade in coals and copper. Pop. 11,446.

**Llanfyl'lin**, a town in Montgomeryshire. Pop. 1068.

**Llangol'len**, a town in Denbighshire, situated in a beautiful vale on the banks of the Dee, and surrounded by fine scenery. Pop. 5799 p.

**Llanid'loes**, a town in Montgomeryshire, with a brisk trade in flannels. Pop. 3127.

**Llantris'sent**, a town in Glamorganshire. Pop. 1493.

**Low'don**, the metropolis of the British empire, situated on the Thames, the wealthiest and one of the largest and most populous cities in the world. Its three principal divisions are: the City, in which its immense commerce is chiefly carried on,—Westminster, the seat of the Court and Parliament,—and Southwark, on the southern bank of the Thames. These are connected by magnificent bridges. The most splendid edifices are St Paul's Cathedral, Westminster Abbey, the Palace of Westminster (containing the Houses of Parliament), the Tower, the British Museum, Buckingham Palace, the Exchange, the Bank of England, the Mansion House, and the General Post Office. London has been so vastly extended as to embrace large adjacent villages, which have grown to the size of cities: on the north, Hackney, pop. 76,687 p.; Islington, 155,341 p.; on the east, Spitalfields, 20,593 p.; Stepney, 98,836 p.; Rotherhithe, 24,502 p.; on the south, Camberwell, 71,488 p.; on the west, Kensington, 70,108 p.; Chelsea, 63,459 p.; with several others. Pop. 2,803,969.—51, 30 N. 0, 5 W.

**Lough'borough**, a town in Leicestershire, has an extensive hosiery and lace trade. Pop. 10,830.

**Louth**, a town in Lincolnshire, situated on a canal which joins the

**Humber**, with considerable trade and manufactures. Pop. 10,560.

**Lowestoft**, a seaport in Suffolk, and the most easterly point of England. Pop. 10,663.—52, 29 N. 1, 45 E.

**Ludlow**, an ancient town of Shropshire, with the ruins of a stately castle. Pop. 6033.

**Lu'ton**, a town in Bedfordshire, on the Lea, with extensive manufactures of strawplait. Pop. 15,329.

**Lyme Regis**, a seaport in Dorsetshire, and a noted watering-place, with a good harbour. Pop. 3215.—50, 43 N. 2, 56 W.

**Lymington**, a seaport in Hants, resorted to for sea-bathing. P. 5179.

**Lynn Regis**, or King's Lynn, a flourishing seaport in Norfolk, at the mouth of the Ouse, with an extensive trade in corn. Pop. 16,170.—52, 46 N. 0, 25 E.

**MACCLESFIELD**, a town in Cheshire, with great silk manufactures. Pop. 36,101.—53, 16 N. 2, 7 W.

**Machynlleth**, an ancient town in Montgomery, with manufactures of flannels and cottons. Pop. 1645.

**Maidstone**, the county town of Kent, on the Medway, the great emporium of the hop-trade. P. 23,058.

**Mal'don**, a seaport in Essex, at the mouth of the Chelmer, with considerable import trade. Pop. 6261.

**Malmesbury**, a very ancient town in Wilts. Pop. 6881.

**Mal'ton**, a town in the N. R. of Yorkshire, on the Derwent. P. 8072.

**Malvern**, a watering-place in Worcestershire. Pop. 4434.—The Malvern Hills are a range in the S. W. of Worcestershire, and in the county of Hereford, 1396 feet high.

**Man**, anciently *Mona*, an island in the Irish Sea, 30 miles in length by 12 in breadth; it is 20 miles from the coast of Scotland, and nearly equidistant from England and Ireland. Pop. 52,469.—54, 15 N. 4, 30 W.

**Man'chester**, a city and bishop's see in Lancashire, the seat of the greatest manufactures in the world. Its staple consists in the different branches of the cotton trade, which are carried on to a vast extent. Pop. 357,979.—53, 29 N. 2, 14 W.

**Mansfield**, an ancient town in Nottinghamshire, on the Mann. Pop. 8346.

**Mar'gate**, a seaport of Kent, in the Isle of Thanet, much frequented for sea-bathing. Pop. 8874.—51, 23 N. 1, 22 E.

**Marlborough**, a town in Wilts, on the Kennet. Pop. 4893.

**Marlow**, Great, a town in Bucks, on the Thames. Pop. 6496.

**Ma'ryport**, a seaport in Cumberland, at the mouth of the Ellen. Pop. 6037.

**Matlock**, a town in Derby, noted for its medicinal springs. P. 4252 p.

**Med'way**, a river which rises in Sussex, and, flowing through Kent, falls into the Thames at Sheerness.

**Me'nai Strait**, between the Isle of Anglesea and Carnarvon, which are connected by magnificent suspension and railway tubular bridges, thrown over the strait.

**Men'dip Hills**, a noted mineral range in the N. E. of Somerset, 1094 feet high.

**Merionethshire**, a mountainous and romantic county of N. Wales, between Montgomeryshire and St George's Channel. Pop. 88,963.

**Mersey**, a river which flows between Cheshire and Lancashire, and falls into the Irish Sea at Liverpool.

**Merthyr Tydvil** (*Murthir Tudvil*), a town in Glamorganshire, situated in the valley of the Taaf. From an obscure village it has been raised by its extensive iron-works to be the largest town in Wales. Pop. 83,875.—51, 45 N. 3, 20 W.

**Mid'dlesborough**, a modern town in the N. R. of Yorkshire, on the right bank of the estuary of the Tees. It is the centre and port of the Cleveland iron district; and although founded so recently as 1830, its population was estimated in 1868 at 35,000.

**Mid'dlesex**, the metropolitan county of England. Pop. 2,206,486.

**Mid'dleton**, a town in Lancashire, between Manchester and Rochdale. Pop. 9876.

**Mid'hurst**, a well-built town in Sussex. Pop. 6405.

**Mil'ford Haven**, a deep inlet of the sea in the S. of Pembrokeshire, the safest and most capacious harbour in Britain.

**Mold**, the county town of Flintshire. Pop. 3735.

**Mon'mouthshire**, a small county on the borders of Wales, abounding in coal and iron. Pop. 174,633.

**Mon'mouth**, the county town of Monmouthshire, on the Wye, the birthplace of Henry V. Near it are the picturesque remains of Tintern Abbey. Pop. 5783.

**Montgom'eryshire**, a county in Wales. Pop. 66,919.

**Montgom'ery**, the county town of Montgomeryshire, near the Severn. Its ancient castle is now a mass of ruins. Pop. 1276.

**More'cambe Bay**, a bay of the Irish Sea, indenting the coast of Lancashire.

**Mor'peth**, a town in Northumberland, having one of the greatest cattle-markets in England. Pop. 13,794.—55, 11 N. 1, 42 W.

**Mounts Bay**, an extensive bay in the S. W. of Cornwall.

**NANT'WICH**, a town in Cheshire on the Weaver, has a great trade in salt and cheese. Pop. 6225.

**Nar'berth**, a town in Pembroke-shire. Pop. 1209.

**Naze**, a noted promontory on the E. Coast of Essex.—51, 52 N. 1, 17 E.

**Neath**, a town in Glamorganshire, possessing a considerable trade. Pop. 6810.

**Nee'dles**, a cluster of pointed rocks, at the W. extremity of the Isle of Wight.—50, 40 N. 1, 34 W.

**Neots, St.**, a town in Huntingdon, on the Ouse. Pop. 3090.

**New River**, a large aqueduct from Hertfordshire to Islington, by which a great part of London is supplied with water.

**New'ark**, a town in Nottingham, on a branch of the Trent with an extensive trade. Pop. 11,515.

**New'bury**, a town in Berkshire, situated in a fertile plain, on the banks of the Kennet. Pop. 6161.

**Newcas'le**, the capital of Northumberland, about 10 miles from the mouth of the Tyne. It is a place of great trade, particularly in coals and the manufacture of machinery and glass. Pop. 109,108.—54, 59 N. 1, 37 W.

**Newcas'le-under-Lyme**, a town in Staffordshire, on a branch of the Trent, noted for the extensive manufactures of stoneware in its vicinity. Pop. 12,938.

**Newmar'ket**, a town in the counties of Cambridge and Suffolk, celebrated for its horse-races. Pop. 4069.

**New'port**, the capital of the Isle of Wight, on the Medina, near the centre of the island. Pop. 7934.—A thriving seaport in Monmouth, on the Usk, possessing large docks, and a very extensive trade in coal and iron. Pop. 23,249.

**New'town**, a town in Montgomery-

shire, on the Severn, the chief seat of the fine flannel trade. Pop. 5916.

**Nore**, a celebrated naval station and anchoring-ground in the Thames, off Sheerness.

**Nor'folk**, a maritime county on the eastern coast of England. Pop. 434,798.

**Northal'terton**, a town in the N. R. of Yorkshire, near which the Scots, under King David I., were defeated at the battle of the Standard, in 1138. Pop. 4755.

**Northamp'tonshire**, an inland county, noted for its woodlands and pasturage. Pop. 227,704.

**Northamp'ton**, the county town of Northamptonshire, on the Nen, with a large trade in boots and shoes. P. 32,813.—52, 15 N. 0, 55 W.

**Northum'berland**, a county in the N. of England. The chief source of its wealth is its great coalfield. Pop. 343,025.

**North'wich**, a town in Cheshire, with extensive salt mines. Pop. 1190.

**Nor'wich**, the capital of Norfolk, a city and bishop's see, with a fine cathedral; it has been long noted for its trade and manufactures. Pop. 74,891.—52, 38 N. 1, 18 E.

**Not'tinghamshire or Notts**, an inland county. Pop. 293,867.

**Not'tingham**, the county town of Nottinghamshire, near the Trent; the chief seat of the hosiery and lace manufactures. Here King Charles I. set up his standard at the beginning of the civil war in 1642. Pop. 74,693.—52, 57 N. 1, 8 W.

**OAK'HAM**, the county town of Rutland. Pop. 2948.

**Old'ham** a great manufacturing town in Lancashire, on the Medlock. Pop. 94,344.

**Ol'ney**, a town in Buckinghamshire, near which the poet Cowper long resided. Pop. 2258.

**Or'ford**, a town in Suffolk, at the confluence of the Alde and the Ore. Pop. 948 p.

**Ormes Head, Great**, a promontory on the coast of Denbighshire.—53, 20 N. 3, 52 W.

**Os'westry**, a town in Shropshire, near the Severn and Mersey Canal, with manufactures of flannel. Pop. 5414.

**Ot'terburn**, a village in Northumberland, famous as the scene of a battle between Hotspur Percy and Douglas in 1388. Pop. 378.

**Ouse (Ooz)**, the name of four rivers. The Yorkshire Ouse, formed by the junction of the Swale and Aire, unites with the Trent to form the Humber. The Great Ouse, which rises in Northamptonshire, flows through the counties of Buckingham, Bedford, Huntingdon, Cambridge, Norfolk, and falls into the sea at Lynn Regis. The Little Ouse divides Norfolk from Suffolk, and falls into the Great Ouse. The other river of this name is in Sussex.

**Oxfordshire**, a midland county of England. Pop. 170,944.

**Oxford**, the capital of Oxfordshire, a bishop's see, and the seat of a celebrated university, containing nineteen colleges and five halls. P. 27,560.—51, 45 N. 1, 15 W.

**PEAK**, a lofty mountain, or more properly district, in Derbyshire, celebrated for the extensive caverns by which it is perforated, and noted for its lead mines.

**Peel**, a seaport in the W. of the Isle of Man, with an ancient castle. Pop. 2848.

**Pembrokeshire**, a county of South Wales. Pop. 96,278.

**Pembroke**, the county town of Pembrokeshire, on a bay of Milford Haven: near it are the remains of a great castle. Pop. 15,071.—51, 40 N. 4, 55 W.

**Pen'nygant**, a hill in the N. W. of Yorkshire, 2270 feet high.

**Pen'rith**, a town in Cumberland, pleasantly situated in the vale of Inglewood Forest. Pop. 7189.

**Pen'ryn**, a town in Cornwall, on the creek which runs into Falmouth Harbour, with a considerable trade in the pilchard and Newfoundland fisheries. Pop. 3547.

**Pen'zance**, a seaport in Cornwall, remarkable for the salubrity and mildness of the air. It is situated on the N. W. side of Mounts Bay, and has a considerable trade. Pop. 9414.—50, 8 N. 5, 32 W.

**Pet'erborough**, a city and bishop's see in Northamptonshire, on the river Nen. It has a fine cathedral. Pop. 11,735.

**Pet'ersfield**, a town in Hants. Pop. 5855.

**Pierre', St. or Peter-le-Port**, the capital of Guernsey, in the E. of the island. It has a good harbour with a noble pier. Pop. 16,388.—49, 25 N. 2, 35 W.

**Plinlim'mon**, a mountain on the

borders of Montgomery and Cardiganshires, 2481 feet high.

**Plym'outh**, a seaport of Devonshire, the second naval station in the kingdom, situated at the head of Plym'outh Sound, a capacious haven, formed by the Plym and Tamar. Pop. 62,599.—50, 22 N. 4, 10 W.

**Pon'tefract**, a town in the W. R. of Yorkshire, with an ancient castle, now in ruins. Pop. 11,736.

**Pon'typool**, a town in Monmouth, on a steep cliff overhanging a small stream, long famous for its japanned ware. Pop. 4661.

**Poole**, a flourishing seaport in Dorsetshire, with a prosperous fishery. Pop. 9759.—50, 42 N. 1, 59 W.

**Port'land Isle**, a peninsula in Dorsetshire, famous for its freestone quarries. Near the S. point, Portland Bill, two lighthouses are erected.—50, 31 N. 2, 27 W.

**Ports'mouth**, a seaport in Hants, the most important naval station in the kingdom. Pop. 94,799.—50, 48 N. 1, 6 W.

**Pres'cot**, a town in Lancashire, noted for its manufacture of watch tools and movements. Pop. 6066.

**Pres'teign**, a handsome town of Radnorshire, situated in a fertile valley, on the Lugg. Pop. 1743.

**Pres'ton**, a handsome town in Lancashire, on the Ribble, with large cotton manufactures. Pop. 82,895.

**Pur'beck**, Isle of, in the S. E. extremity of Dorsetshire, noted for its freestone quarries.

**Pwllheli (Pulhe'li)**, a seaport in Carnarvonshire. Pop. 2818.

**RAD'NORSHIRE**, a mountainous county in South Wales. Pop. 25,382.

**Rad'nor**, New, the county town of Radnorshire, on the Somergill. Pop. 2262.

**Ram'sey**, a town in Huntingdon, formerly noted for its rich and extensive abbey. Pop. 2354.—Another town in the Isle of Man, on a spacious bay. Pop. 2891.

**Rams'gate**, a seaport of Kent, in the Isle of Thanet, noted for its excellent artificial harbour. Pop. 11,865.—51, 20 N. 1, 25 E.

**Reading (Red'ding)**, the county town of Berkshire, situated at the junction of the Kennet with the Thames. Pop. 25,045.

**Red'ruth**, a flourishing town in Cornwall, in the vicinity of extensive copper and tin mines. P. 7919.



**Red'gate**, an ancient town in Surrey. Pop. 9875.

**Ret'ford**, East, a town in Nottinghamshire. Pop. 2982.

**Rhudd'lan**, a village in Flintshire, once the largest town in North Wales. Pop. 1408.

**Rib'ble**, a river rising in the W. of Yorkshire, and entering the sea below Preston.

**Rick'mond**, a town in the N. R. of Yorkshire, with an ancient castle, picturesquely situated on the Swale. Pop. 5124.—A village in Surrey, on a hill near the Thames, commanding one of the finest views in England. Pop. 7423.

**Rip'on**, a city and bishop's see in the W. R. of Yorkshire, with a fine cathedral; it was once celebrated for its manufacture of spurs. Pop. 6172.

**Rock'dale**, a manufacturing town, partly in Lancashire and partly in Yorkshire, on the Roche. P. 38,184.

**Rock'ester**, a very ancient city and seaport of Kent, on the Medway, with a castle and cathedral. Pop. 18,862.—51, 24 N. 0, 30 E.

**Rock'erham**, a town in the W. R. of Yorkshire, near the junction of the Rother with the Don, long noted for its extensive iron-works. Pop. 7588.

**Rug'by**, a town in Warwickshire, on the Avon, a noted railway station, 82½ miles N. W. from London, with a celebrated school. Pop. 7818.

**Run'corn**, a town in Cheshire, on the Mersey, with extensive freestone quarries in the neighbourhood. Pop. 10,434.

**Ru'thin**, a town in Denbighshire, in the vale of Clwyd. Pop. 3872.

**Rut'landshire**, the smallest county in England, being only 15 miles long and 11 broad. The soil is in general fertile,—particularly the rich vale of Catnase. Pop. 21,861.

**Ryde**, a town in the Isle of Wight, beautifully situated on the N. E. coast, opposite Portsmouth. Pop. 9288.

**Rye**, a seaport in Sussex, at the mouth of the Rother. Pop. 8202.—50, 56 N. 0, 43 E.

**SAD'DLEBACK**, a mountain in Cumberland, 2784 feet high.

**Saffron-Wal'den**, a town in Essex. Pop. 5474.

**Sal'ford**, a township in Lancashire, a suburb of Manchester. Pop. 102,440.

**Salisbury**, an ancient city and

bishop's see, the capital of Wilts. Its cathedral, the spire of which is 404 feet high, is one of the finest in Europe. Pop. 12,278.—51, 5 N. 1, 47 W.

**Sal'op**, see Shropshire.

**Sand'wich**, a seaport in Kent, on the Stour. Pop. 2944.

**Sark**, a small island off the French coast, between Jersey and Guernsey, with lead mines. Pop. 583.—49, 25 N. 2, 26 W.

**Scar'fell**, a mountain in Cumberland, with two peaks, 3082 and 3229 feet high.

**Scar'borough**, a seaport in the N. R. of Yorkshire, and a favourite watering-place, with considerable trade; it is much admired for the beauty of its situation. Pop. 18,377.—54, 17 N. 0, 23 W.

**Scilly Isles**, supposed to be the *Cassiterides* of the ancients, a numerous group, stretching westward from the Land's End, of which 6 only are inhabited. The principal is St Mary's. Total pop. 2431.—49, 58 N. 6, 15 W.

**Sel'by**, a thriving town in the W. R. of Yorkshire, on the Ouse, with a considerable trade. Pop. 5271.

**Severn**, a large river, second only to the Thames. It rises in Plynlimon mountain, and passing, by a circuitous course, through the counties of Montgomery, Salop, Worcester, and Gloucester, falls into the Bristol Channel.

**Shaftes'bury**, an ancient town in Dorsetshire. Pop. 8083.

**Sheerness**, a great naval station in Kent, at the mouth of the Medway, with a strong and commanding fortress. P. 12,015.—51, 27 N. 0, 44 E.

**Shef'field**, a town in the W. R. of Yorkshire, famous for its manufactures of cutlery and plated goods. Pop. 185,172.—53, 24 N. 1, 30 W.

**Shep'pey**, an island at the mouth of the Thames and Medway, separated from the mainland of Kent by an arm of the sea called the Swale.

**Sher'borne**, an ancient town in Dorsetshire, pleasantly situated on the Ivel. Pop. 5523.

**Shields**—North Shields in Northumberland, and South Shields in Durham, two towns on the opposite banks of the Tyne, both places of considerable trade. Pop. of North Shields, 9595; of South Shields, 35,230.—55, 0 N. 1, 26 W.

**Shore'ham**, New, a town in Sussex, on the English Channel. P. 3361 p.

**Shrewsbury** (Shros'berry), the



county town of Salop, beautifully situated on the Severn, with a considerable trade. Here Henry Percy, surnamed Hotspur, was defeated and slain by King Henry IV. in 1403. Pop. 22,163.—52, 42 N. 3, 45 W.

Shrop'shire or Sal'op, an inland county, the seat of extensive iron-works. Pop. 240,959.

Skid'daw, a mountain in Cumberland, 3022 feet high.

Snea'fell, a mountain near the centre of the Isle of Man, 2004 feet high.

Snow'don, in Carnarvon, the loftiest mountain in South Britain, 3590 feet high.

Sol'way. See Descriptive Table of Scotland.

Som'erset, a county on the Bristol Channel. Pop. 444,873.

Southamp'ton, a seaport in Hants, at the mouth of the Itchen, the principal port for the mail steam-packets. Pop. 46,960.—50, 54 N. 1, 24 W.

South'wark, commonly called *the Borough*, a town in Surrey, united by several bridges with London, of which it is now considered a portion. Pop. 193,593.

Spit'head, a well-known roadstead, between Portsmouth and the Isle of Wight, capable of containing 1000 vessels in security.—50, 46 N. 1, 10 W.

Spurn'head, a promontory in the S. E. of Yorkshire, on which is a lighthouse.—53, 34 N. 0, 7 E.

Staffordshire, an inland county, noted for its potteries and iron foundries. Pop. 746,943.

Stafford, the county town of Staffordshire. Pop. 12,532.

Stam'ford, an ancient town in Lincolnshire, on the Welland. Pop. 8047.

Start Point, a cape on the S. coast of Devonshire.—50, 13 N. 3, 38 W.

Stay'ley-bridge, a manufacturing town, partly in Cheshire, and partly in Lancashire, near the Tame. Pop. 24,921.

Stock'port, a manufacturing town in Cheshire, on the Mersey. Pop. 54,681.—53, 25 N. 2, 9 W.

Stock'ton, a handsome town in Durham, on the Tees, with considerable trade. Pop. 13,357.—54, 35 N. 1, 19 W.

Stoke-upon-Trent, a town in Staffordshire, with a large manufacture of earthenware. Pop. 101,207.

Stone'henge, on Salisbury Plain, in Wilts, a range of immense stones, some upright, and others resting upon them, supposed by some to be

a sepulchral monument, and by others to be the remains of a Druidical temple.

Stour'bridge, a town in Worcestershire on the Stour, noted for the manufacture of glass. Pop. 8166.

Strat'ford-on-A'von, a town of Warwickshire, where Shakspeare was born in 1564. Pop. 3672.

Stroud, a town in Gloucestershire, with an extensive cloth trade, the waters of the Stroud and Glade being celebrated for their properties in dyeing cloth. Pop. 35,517.

Strum'ble Head, a cape in the N. W. of Pembrokeshire.—52, 2 N. 5, 4 W.

Sud'bury, a town in Suffolk, on the Stour, once a place of great importance for its woollen manufactures. Pop. 6879.

Suff'olk, a county on the E. coast, separated from Norfolk by the Little Ouse and the Wavenay. P. 337,070.

Sun'derland, a seaport in Durham, on the Wear, over which is an iron bridge of 237 feet span, and 100 feet above the river. Pop. 85,797.—54, 55 N. 1, 22 W.

Sur'rey, a county in the S. of England. Pop. 831,093.

Sus'sex, a county on the English Channel. Pop. 363,735.

Swan'sea, a seaport in Glamorgan-shire, situated on a fine bay of the Bristol Channel. It is much resorted to for sea-bathing, and has a large trade in copper, iron, and coals. Pop. 41,606.—51, 37 N. 3, 55 W.

TAM'WORTH, a thriving town in Staffordshire, on the Tame. P. 10,192.

Taun'ton, a town in Somersetshire, on the Tone. Pop. 14,667.

Tav'istock, a town in Devonshire on the Tavy, the birthplace of Sir Francis Drake. Pop. 8857.

Tees, a river which rises in Cross-fell, Cumberland, and, flowing eastward, divides the counties of Durham and York, and falls into the German Ocean below Stockton.

Ten'by, a town in Pembrokeshire, much resorted to for sea-bathing. Pop. 2982.

Test, a river in Hampshire, falling into Southampton Bay.

Tewkes'bury, a fine old town of Gloucestershire, on the Severn, the scene of a famous battle in 1471, which terminated the wars between the houses of York and Lancaster. Pop. 5876.

THAMES, the chief river in Britain, rises in Gloucestershire, separates

Berks from Oxford and Buckingham, Surrey from Middlesex, and Kent from Essex, and falls into the German Ocean 46 miles below London Bridge.

**Than'et**, Isle of, a district of Kent, at the mouth of the Thames, separated from the mainland by the Stour on the S. The air is mild and salubrious. It contains two popular watering-places, Margate and Ramsgate. Pop. 31,862.

**Thet'ford**, an ancient town in Norfolk, on the Little Ouse. Pop. 4208.

**Thirsk**, a town in the N. Riding of Yorkshire. Pop. 5350.

**Tiv'erton**, a town in Devonshire, at the confluence of the Exe and the Loman. Pop. 10,447.

**Torbay**, a commodious bay on the coast of Devon.—50, 26 N. 3, 30 W.

**Torquay** (ke), a seaport in Devonshire, beautifully situated on Torbay, and much frequented as a watering-place. Pop. 16,419.

**Totness**, a small thriving town in Devonshire, on the Dart. Pop. 4001.

**Trent**, a large river which rises in the N. of Staffordshire, flows through the counties of Derby, Nottingham, and Lincoln, and unites with the Yorkshire Ouse in forming the Humber.

**Trow'bridge**, a town in Wilts, on the Were, with manufactures of cloth and cassimeres. Pop. 9626.

**Tru'ro**, a flourishing town of Cornwall, in a deep dell at the confluence of the Kenwyn and the Allen. Pop. 11,337.—50, 17 N. 5, 3 W.

**Tun'bridge**, a town in Kent (Pop. 5919), near which are *Tunbridge Wells*, a group of villages so called from their celebrated medicinal springs. Pop. 13,807.

**Twick'enham**, a beautiful village in Middlesex, on the Thames, surrounded by villas. It was the residence of the poet Pope. Pop. 8077 p.

**Tyne**, the principal river of Northumberland, is formed by the junction of the North and South Tyne, and falls into the German Ocean.

**Tyne'mouth**, an ancient town in Northumberland, at the mouth of the Tyne. Pop. 34,021.

**ULLS'WATER**, a picturesque lake between Cumberland and Westmoreland.

**Ux'bridge**, a rural town in Middlesex, having the largest corn-markets in the kingdom. Pop. 3815.

**WAKE'FIELD**, a flourishing manufacturing town in the W. R. of

Yorkshire. Pop. 23,350.—53, 41 N. 1, 29 W.

**Wal'lingford**, a town in Berks, on the Thames. Pop. 7794.

**Wal'sall**, a flourishing town in Staffordshire. Pop. 37,760.

**Ware**, a town in Hertfordshire, on the Lea. Pop. 5002.

**Ware'ham**, a town in Dorsetshire, near the mouth of the Frome. P. 6694.

**War'rington**, a thriving manufacturing town in Lancashire, on the Mersey. P. 26,947.—53, 23 N. 2, 35 W.

**War'wickshire**, a midland county of England, the principal seat of the riband manufacture. Pop. 561,855.

**War'wick**, the county town of Warwickshire, on the Avon. Its castle is one of the noblest in the kingdom. Pop. 10,570.

**Wash**, a large bay of the German Ocean, laving the counties of Lincoln, Cambridge, and Norfolk.

**Wear**, a river which rises in the W. of Durham, and after a circuitous course, falls into the German Ocean between Sunderland and Monkwearmouth. Near this latter place the Venerable Bede was born in 673.

**Wel'linton**, a town in Shropshire, near Shrewsbury Canal. P. 5576.—A town in Somersetshire, with manufactures of serges, druggets, etc. P. 3689.

**Wells**, a city in Somersetshire, situated at the base of the Mendip Hills. Its cathedral is one of the finest in England. Pop. 4648.

**Welsh'pool**, a town in Montgomeryshire, pleasantly situated in the vale of the Severn, and a great market for flannels. Pop. 7304.

**Wen'lock**, a town in Salop, with an ancient abbey. Pop. 21,590.

**West'bury**, a town in Wilts. Pop. 6495.

**West'minster**, a city in Middlesex, adjoining London, of which it may be considered a part, although it possesses distinct rights and privileges. Pop. 254,623.

**West'moreland**, a county in the N. of England, celebrated for its lakes and romantic scenery. Pop. 60,817.

**Wey'mouth**, a seaport in Dorsetshire, united to Mel'combe Regis by a bridge over the Wey, much frequented as a bathing-place. Pop. 11,383.—50, 36 N. 2, 26 W.

**Whern'side**, a mountain in the N. W. of Yorkshire, 2414 feet high.

**Whit'by**, a seaport in the N. R. of Yorkshire, the birthplace of Captain Cook. P. 12,051.—54, 29 N. 0, 36 W.

**Whiteha'ven**, a thriving seaport in Cumberland, with extensive coal mines. Pop. 18,842.—54, 33 N. 3, 35 W.

**Wig'an**, a manufacturing town in Lancashire. Pop. 37,658.

**Wight**, Isle of (the *Vectis* of the Romans), a beautiful island off the S. coast of England, between which and Portsmouth is the great naval road of Spithead. In the centre of the island is Carisbrooke Castle, where Charles I. was confined. Pop. 55,362.—50, 42 N. 1, 20 W.

**Wig'ton**, a town in Cumberland, with cotton manufactures. P. 4011.

**Wil'ton**, a town of Wilts, long noted for its manufacture of carpets. Pop. 8657.

**Wilt'shire** or **Wilts**, an inland county S. of the Thames. P. 249,311.

**Win'chester**, the capital of Hants, an ancient city and bishop's see, with a spacious cathedral, famous for its public school. Here Alfred the Great was buried in 901. Several English kings were crowned here. P. 14,776.

**Win'dermere**, the largest lake in England, between Westmoreland and Lancashire.

**Wind'sor**, a town in Berkshire, on the Thames, 22 miles from London, celebrated for its castle, the chief residence of the British sovereigns. Pop. 9520.

**Wis'beach**, a town in Cambridge-shire, on the Nene, carries on a large trade in corn. Pop. 9276.

**With'am**, a river in Lincolnshire, which flows past Lincoln, and, pursuing a south-easterly course, falls into the Wash.

**Wit'ney**, a town in Oxfordshire, long noted for its manufacture of woollens, particularly blankets. Pop. 3458.

**Wit'tleseamere**, a lake in the N. E. of Huntingdonshire, now drained.

**Wo'burn**, a town in Bedfordshire. Within a mile of it is Woburn Abbey, the splendid seat of the Duke of Bedford. Pop. 1764 p.

**Wolverhamp'ton**, a town in Staf-fordshire, celebrated for its manufac-tures of locks and keys. Pop. 60,860.—52, 35 N. 2, 7 W.

**Wood'bridge**, a town in Suffolk, on the Deben, carries on a consider-able trade. Pop. 4518.

**Wood'stock**, a town in Oxford-shire, with extensive manufactures of gloves. Near it is Blenheim, the magnificent seat of the Duke of Marl-borough. Pop. 7827.

**Wool'wich**, a town in Kent, on the Thames, 8 miles below London. It is famous for its extensive arsenal and military academy. Pop. 41,695 p.—51, 30 N. 0, 3 E.

**Worcestershire** (**Woos'ter**), a rich and beautiful midland county of Eng-land. Pop. 307,397.

**Worcester** (**Woos'ter**), the capital of Worcestershire, and a bishop's see, noted for its porcelain manufac-ture. Here Cromwell defeated the army of Charles II. in 1651. Pop. 31,227.—52, 12 N. 2, 13 W.

**Work'ington**, a seaport in Cum-berland, with extensive collieries in the neighbourhood. Pop. 6467.—54, 38 N. 3, 33 W.

**Work'sop**, a town in Nottingham-shire, pleasantly situated in a valley, with a fine old church. Pop. 7112.

**Worms Head**, a cape in Glamor-ganshire.—51, 34 N. 4, 20 W.

**Worth'ing**, a seaport and fashion-able watering-place in Sussex. Pop. 5805.

**Wrek'ln**, a hill in Shropshire, 1320 feet high.

**Wrex'ham**, a handsome town in Denbighshire. Its ancient church is a large and venerable structure. Pop. 7562.

**Wy'combe**, High, a handsome town in the county of Buckingham; in the vicinity are numerous corn and paper mills. P. 8373.

**Wye**, a picturesque river of Wales, which rises in the S. of Montgomery-shire, crosses Radnor and Hereford-shires, divides Monmouth from Glou-cester, and falls into the Severn be-low Chepstow.

**YAR'MOUTH**, a seaport of Nor-folk, at the mouth of the Yare, with a flourishing trade. Pop. 34,810.—52, 36 N. 1, 43 E.

**Yeo'vil**, a town in Somersetshire, with a considerable manufacture of gloves. Pop. 7957.

**York'shire**, the largest county in England, divided into the East, West, and North Ridings. The East is very fertile, while the West is the principal seat of the woollen manufacture. Pop. 2,033,610.

**York**, the *Eboracum* of the Romans, the capital of Yorkshire, and the see of an archbishop. Its celebrated cathedral or minster is one of the best and most perfect examples of Gothic or Pointed architecture in Europe. Pop. 45,385.—53, 57 N. 1, 4 W.





Drawn by J. H. K. K. K.

## SCOTLAND

Is bounded N. by the Atlantic Ocean ; W. by the Atlantic Ocean and North Channel ; S. by England, the Solway Frith, and Irish Sea ; E. by the German Ocean.

It contains 30,685 square miles. The population in 1861 was 3,062,294.

It is divided into thirty-three counties :—

Counties.	Chief Towns.
Orkney & Shetland.	Kirkwall, Stromness, Lerwick.
Caithness .....	Wick, Thurso.
Sutherland .....	Dornoch, Golspie.
Ross .....	Dingwall, Tain, Fortrose, Stornoway (in the island of Lewis).
Cromarty .....	Cromarty.
Inverness .....	Inverness, Fort George, Fort Augustus, Fort William.
Nairn .....	Nairn.
Elgin or Moray .....	Elgin, Forres, Fochabers.
Banff .....	Banff, Cullen, Keith.
Aberdeen .....	Aberdeen, Peterhead, Fraserburgh, Inverury, Huntly.
Kincardine .....	Stonehaven, Bervie, Laurencekirk.
Forfar .....	Forfar, Dundee, Montrose, Arbroath, Brechin, Kirriemuir.
Fife .....	Cupar, St Andrews, Dunfermline, Kirkcaldy, Burntisland, Falkland, Newburgh.
Kinross .....	Kinross.
Clackmannan .....	Clackmannan, Alloa, Dollar.
Perth .....	Perth, Dunkeld, Crieff, Kincardine, Dunblane, Callander, Blairgowrie.
Argyll .....	Inveraray, Campbelton, Oban.
Bute .....	Rothsay, Brodick (in Arran).
Dumbarton .....	Dumbarton, Helensburgh, Kirkintilloch.
Stirling .....	Stirling, Falkirk, Grangemouth, Bannockburn.
Linlithgow or West Linlithgow, Lothian .....	Queensferry, Borrowstounness, Bathgate.
Edinburgh or Mid-EDINBURGH, Lothian .....	Leith, Portobello, Musselburgh, Dalkeith.
Haddington or East Lothian .....	Haddington, Dunbar, North Berwick.
Berwick .....	Greenlaw, Dunse, Coldstream, Lauder.
Roxburgh .....	Jedburgh, Kelso, Hawick, Melrose.
Selkirk .....	Selkirk, Galashiels.
Peebles .....	Peebles, Inverleithen.
Lanark .....	Lanark, Glasgow, Hamilton, Airdrie, Rutherglen.
Renfrew .....	Renfrew, Paisley, Greenock, Port Glasgow.
Ayr .....	Ayr, Kilmarnock, Irvine, Ardrossan, Stewarton.

## Counties.

## Chief Towns.

Dumfries .....	Dumfries, Annan, Moffat, Langholm.
Kirkcudbright .....	Kirkcudbright, Castle Douglas.
Wigtown .....	Wigtown, Stranraer, Whithorn, Port Patrick, Newton-Stewart.

**ISLANDS.**—Shetland Isles, the principal of which are, Mainland, Yell, and Unst; Orkney Isles, the principal of which are, Pomona or Mainland, and Hoy; the Hebrides or Western Isles, the principal of which are, Lewis, Skye, Mull, Staffa, Iona, Tiree, St Kilda, Jura, Islay; Bute, Arran.

**FRITHS,\* BAYS, AND LOCHS.†**—Pentland, Dornoch, Cromarty, and Moray Friths; Friths of Tay and Forth, Solway Frith, Frith of Clyde; Wigtown and Luce Bays; Sounds of Islay, Jura, and Mull; the Minch; Lochs Ryan, Long, Fine, Etive, Linnhe, Broom.

**CAVES.**—St Abb's Head, Fifeness, Buchanness, Kin-naird's Head, Burgh Head, Tarbetness, Duncansbay Head, Dunnet Head, Cape Wrath, Butt of Lewis, Point of Ardnamurchan, Mull of Cantire, Corsill Point, Mull of Galloway, Burrow Head, Saturnness.

**LAKES.**—Loch Lomond; Awe; Tay, Rannoch, Ericht, Ketterin, Earn; Shin; Laggan; Ness, Lochy; Maree; Leven.

**MOUNTAINS.**—The Grampians, the highest summit of which is BEN NEVIS, which is also the loftiest mountain in Great Britain; Ben Macdhui; Braeriach; Cairntoul; Cairngorm; Lochnagar; Ben Aven; Mount Battock; Schiehallion; Ben Lawers; Ben More; Ben Ledi; Ben Lomond; Ben Cruachan; Ben Attow; Ben Dearg; Ben Wyvis; the Ochils; the Pentland Hills; the Lammermoor Hills; the Eildon Hills; Tinto; Moffat Hills, the Lowthers; the Leadhills; the Cheviot Hills.

**RIVERS.**—Spey, Findhorn, Deveron, Don, Dee, North and South Esk, Tay, Earn, Forth, Clyde, Tweed, Teviot, Nith, Esk, Annan, Dee, Ken.

## REMARKS.

Scotland, exclusive of the Shetland and Orkney Islands, extends from 54° 38' to 58° 40' N. lat., and from 1° 46' to 6° 5' W. long., not including the Western Isles. Its extreme length is about 280 miles, and its greatest breadth 150 miles.

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\* The spelling is either Frith or Firth.

† By *Lochs* are meant *arms of the sea*.

Scotland is in general a mountainous country, although it has some extensive level districts of great fertility. It is divided into the Highlands and Lowlands; the former chiefly occupied with lofty and rugged mountains, and inhabited by a race of Celts, who, in many parts, still speak the Celtic or Gaelic language; the latter more diversified with hilly and level districts, and inhabited by people of Saxon origin like the English, and speaking dialects of the same language. But the natural geography of the country suggests a more distinct division of it into three portions—NORTHERN, MIDDLE, and SOUTHERN.

The *Northern Division* extends from the Pentland Frith to the great chain of lakes which crosses the country from the coast of Argyll to the Moray Frith, in the line of the Caledonian Canal. It is in general mountainous and bleak, with some fertile spots on the eastern coast.

The *Middle Division* extends southward from the line of the Caledonian Canal to the Friths of Forth and Clyde, and the Great Canal by which they are united. Of this division, likewise, the aspect is chiefly mountainous, although on the eastern coast there are extensive tracts of great fertility and in high cultivation. The centre is celebrated for its lake and mountain scenery.

The *Southern Division*, stretching to the English border, bears in soil and appearance a greater resemblance to England. Though it contains several extensive ranges of hills and wide tracts of moor, its more general aspect is that of verdant plains, watered by beautiful streams and ample valleys or gently swelling eminences of great fertility.

Scotland abounds in minerals, the most valuable of which are iron, coal, lead, granite, and freestone: gold has been found in the county of Sutherland. The fisheries of cod and herrings form an important branch of industry, and are prosecuted to a considerable extent, particularly along its northern shores.

The climate, though variable, is, on the whole, mild and salubrious. The western counties are exposed to frequent and heavy rains from the Atlantic Ocean; the eastern, though less frequently deluged with rain, suffer more from piercing east winds, accompanied with chilling fogs from the German Ocean. There is no country in the world where agriculture is better understood than in the Lowlands of Scotland; and the consequent improvement in its soil and productions, which has taken place within the last fifty years, is astonishing. The Highlands and many parts of the southern and south-eastern districts are best adapted for rearing sheep and cattle.



Manufactures of various kinds are carried on to a great extent. Glasgow and Paisley are the principal seats of the cotton-trade; Dundee, and other towns in Forfarshire, are noted for the manufacture of jute and coarse linens; Dunfermline for damasks and fine linens; Galashiels, Hawick, Jedburgh, Bannockburn, Kilmarnock, and Aberdeen, for tweeds, tartans, and carpets. In the vale of the Clyde, in Ayrshire, and at Carron, are some of the largest iron-works of the kingdom. The Clyde ports are famous for their skill in constructing steam-vessels, and ship-building is carried on with success at Aberdeen and elsewhere. Altogether, Scotland enjoys her due share of the commercial prosperity of Britain.

The resources of the country have of late years been greatly developed by steam-navigation on its coasts and friths; while the facilities of internal traffic have been much increased by railways, which now communicate with all the principal towns as far north as Inverness and Sutherland.

Since the accession of James VI. to the throne of England, in 1603, the whole of Britain has been under the dominion of one sovereign; and since the union of England and Scotland in the reign of Queen Anne, A. D. 1707, the government of the two kingdoms has been nearly the same. The Presbyterian form of church government is almost coeval with the Reformation in Scotland. After many struggles with James VI. and his successors, who wished to establish Episcopacy, the Scots succeeded in procuring the settlement of Presbyterianism as the national religion at the Revolution of 1688. Several secessions have at different times taken place from the Establishment, the most important being that of the Free Church in 1843.

The Scots may be characterized as industrious, frugal, prudent, hardy, and brave. Owing to the excellent parish-schools, established in the seventeenth century, the advantages of education are enjoyed even by the lowest classes. The people generally are fond of learning; and the country can boast of some of the greatest names in literature and science.

#### EXERCISES.

What are the boundaries of Scotland? What is its extent in square miles? Into how many counties is it divided? Name them. What are the principal towns of Orkney and Shetland? Of Caithness? Of Sutherland? Of Ross? etc. What are the principal islands? Point them out on the map. Name the principal friths, bays, and lochs. Point them out on the map. Name the capes.

Point them out on the map. What are the principal lakes? Point them out. Name the principal mountains. Name the rivers.

Where are Falkland, Kirkwall, Kelso, Whithorn, Campbelton, Dornoch, Stranraer, Irvine, Castle Douglas, Dalkeith, Kilmarnock, Dunkeld, Falkirk, Dingwall, Stonehaven, Montrose, Fortrose, Fort George, Port Patrick, Dunbar, Dumbarton, Dunse, EDINBURGH, Glasgow, Greenock, North Berwick, Annan, Dunfermline, Alloa, Lerwick, Brodick, Inveraray, Inverness, Hamilton, Leith, Musselburgh, Borrowstounness, Forres, Bervie, Peterhead, etc.

Where are Pomona, Yell, Mainland, Mull, Skye, Lewis, Hoy, Bute? etc. Where are the Solway Frith, Luce Bay, Pentland Frith, Frith of Tay, Wigtown Bay, Frith of Forth, Cromarty Frith, Moray Frith, Loch Fine, Loch Broom, Loch Long, Frith of Clyde, Loch Etive, Loch Linnhe? etc.

Where are Cape Wrath, Tarbetness, St Abb's Head, Saturnness, Kinnaird's Head, Corsail Point, Duncansbay Head, Point of Ardnamurchan? etc.

Where are Loch Ness, Loch Awe, Loch Lomond, Loch Maree, Loch Ketterin, Loch Erich? etc.

Where are the Lammermoor Hills, the Pentland Hills, the Grampians, Ben Ledi, Ben Lawers, Ben Nevis, Tinto, the Eildon Hills, the Lowthers? etc. Which is the highest mountain in Great Britain? Describe the course of the Tweed, of the Nith, the Clyde, the Tay, the Forth, the Don, the Spey, the Dee, the Teviot, the Annan.

Between what degrees of latitude and longitude is Scotland situated? What are its length and breadth? What is the general appearance of the country? How is it divided? What is the aspect of the Highlands? By what race of people are they inhabited? What is the appearance of the Lowlands? Of what origin are their inhabitants? What other division does the natural geography of the country suggest? What is the extent and situation of the Northern Division? What is its aspect? How far does the Middle Division extend southward? What is its general aspect? How far does the Southern Division extend? What is the general aspect of this division? What are the most valuable minerals of Scotland?

What is the nature of its climate? What varieties of weather prevail in the western and eastern counties? What is the state of agriculture in Scotland? For what are many of its districts best adapted? Are its manufactures extensive? What towns are the principal seats of the cotton manufactures? For what manufacture is Dundee noted? What are the chief manufactures of Dunfermline? What fabrics are produced at Galashiels? etc. For what is Carron celebrated? Is Scotland a commercial country? By what has the progress of Scotland in commercial prosperity been of late years greatly accelerated?

At what time was Scotland united with England in government? What form of church government is established? How long has this been the national religion? To what do the Scots owe the general diffusion of education? When were parish schools established? Have the Scots made a figure in literature and science?

## DESCRIPTIVE TABLE.

**ABB'S HEAD, ST**, a promontory on the N. E. of Berwickshire. It took its name from a nunnery founded here in the 7th century by St Ebba.—55° 55' N. lat. 2° 9' W. long.

**Aberdeen'shire**, an extensive county in the N. E. of Scotland, comprising the districts of Mar, Garioch, Formartine, Strathbogie, and Buchan. Pop. 221,569.

**Aberdeen'**, a seaport, the seat of a flourishing university, and the capital of the county, with extensive trade and manufactures. It is chiefly built of grey granite, and comprehends Old and New Aberdeen,—the former situated on the Don, the latter on the Dee. In Old Aberdeen, there are the remains of a cathedral. Pop. 73,806.—57, 9 N. 2, 6 W.

**Aberneth'y**, a town in Perthshire, near the mouth of the Earn, said to have been the capital of the Pictish kingdom. It has a round tower, supposed to have been part of its ancient monastery. Pop. 984.

**Ail'sa**, a rocky islet in the Frith of Clyde, off the coast of Ayr, two miles in circumference, and 1098 feet high. Pop. 4.—55, 15 N. 5, 7 W.

**Air'drie**, a thriving town in Lanarkshire, in the neighbourhood of great coal and iron works. P. 12,922.

**Al'loa**, a seaport, the principal town in Clackmannanshire, on the Forth. Pop. 6425.

**An'drews, St**, an ancient city and seat of a university, in Fifeshire, on a bay of the German Ocean. It took its name from certain relics of St Andrew the Apostle, which were kept in a shrine in the cathedral. It was long the ecclesiastical capital of the kingdom, and was the scene of many memorable events. Its ancient castle, chapel of St Regulus, and noble cathedral, are now in ruins. Pop. 5176.—56, 21 N. 2, 48 W.

**An'nan**, a seaport in Dumfriesshire, at the mouth of the Annan. Pop. 8473.—54, 59 N. 3, 14 W.

**An'nan**, a river which rises on the borders of Peeblesshire, and flows through Dumfriesshire into the Solway Frith.

**An'struther** (commonly **An'ster**), Easter and Wester, two small towns on the S. E. coast of Fife. Here Dr Thomas Chalmers was born in 1780. Pop. 1545.

**Arbroath'**, a considerable seaport in Forfarshire, with the ruins of an ancient abbey. Pop. 17,593.—56, 34 N. 2, 32 W.

**Ard'namur'chan**, Point of, a cape in Argyll, the most westerly point of the mainland of Scotland.—56, 44 N. 6, 13 W.

**Ardros'san**, a seaport in Ayrshire, with an excellent harbour; it is much resorted to for sea-bathing. P. 2896.

**Argyll'shire**, an extensive county of Scotland, on the W. coast, indented by numerous arms of the sea. Pop. 79,724.

**Ar'ran**, an island of Buteshire, in the Frith of Clyde, distinguished by its mountainous aspect and the remarkable formation of its rocks. Goat-Fell, the most elevated peak, is 2874 feet high. Pop. 5538.—55, 35 N. 5, 18 W.

**A'von**, the name of a romantic lake and river in Banffshire.

**Awe, Loch**, a beautiful lake in Argyll, about 25 miles long and from 1 to 2 broad.

**Ayr'shire**, a large county on the S. W. coast, comprising the districts of Carrick, Kyle, and Cunningham, noted for its cattle and dairies. Pop. 198,971.

**Ayr**, a seaport, the county town of Ayrshire, situated at the mouth of the river Ayr. In a clay-built cottage, two miles south from Ayr, Robert Burns was born in 1759. Pop. 18,573.—55, 27 N. 4, 39 W.

**BANFF'SHIRE**, a county of Scotland, on the Moray Frith. P. 59,215.

**Banff**, a seaport, and the county town of Banffshire, at the mouth of the Deveron. Pop. 6781.—57, 40 N. 2, 31 W.

**Ban'nockburn**, a thriving village in Stirlingshire, with large manufactures of tartans and carpets. The field of Bannockburn is memorable in Scottish history for the victory obtained by Robert Bruce over Edward II., June 24, 1314. Near Bannockburn, King James III. was defeated and slain by his nobles, headed by his own son, in 1488. Pop. 2258.

**Bass**, a lofty and almost inaccessible islet at the mouth of the Frith of Forth, formerly employed as a state-prison.—56, 5 N. 2, 38 W.

**Bath'gate**, a town in the county of Linlithgow. Pop. 4827.

**Bat'tock, Mount**, a mountain on the confines of the shires of Aberdeen, Kincardine, and Forfar, 2554 ft. high.

**Bezu'ly**, a pretty village in Inverness-shire, on the frith of the same name. Pop. 917.

**Bell Rock**, a reef of rocks in the German Ocean, about 12 miles S. E. from Arbroath, completely covered at high water. A lighthouse, 115 feet high, was erected upon it in 1811. Pop. 4.—56, 26 N. 2, 23 W.

**Ben \* At'tow**, a mountain in Inverness-shire, 4000 feet high.

**Ben A'ven**, a mountain of the Grampian range, between the shires of Aberdeen and Banff, rising to the height of 3976 feet.

**Benbec'ula**, an island of the Hebrides, lying betwixt North and South Uist. Pop. 1485.

**Ben Cru'achan**, a mountain in Argyllshire, at the head of Loch Awe, 3670 feet high.

**Ben De'arg**, a mountain in Ross-shire, near Loch Broom, 3551 ft. high.

**Ben Law'ers**, a mountain in Perthshire, rising from the banks of Loch Tay to the height of 3984 feet above the sea.

**Ben Le'di**, a mountain north-west of Callander, in Perthshire, with a small lake on its top, 3009 feet high.

**Ben Lo'mond**, a mountain in Stirlingshire, rising from the east side of Loch Lomond to the height of 3192 ft.

**Ben Macdhui'**, a mountain in the W. extremity of Aberdeenshire, 4295 feet above the sea.

**Ben More**, a conical mountain, towering from the banks of Loch Dochart, Perthshire, to the height of 3819 feet above the sea.

**Ben More**, a mountain in the island of Mull, 3172 feet high.

**Ben Ne'vis**, a mountain in Inverness-shire, near Fort William, the loftiest in Great Britain, being 4406 feet above the sea.

**Ben Venus'**, a picturesque mountain on the south side of Loch Ketterin, 2800 feet high.

**Ben Voil'lich**, a mountain in Perthshire, rising from the south bank of Loch Earn to the height of 3180 feet.

**Ben Vor'lich**, a mountain in Dumbartonshire, N. W. end of Loch Lomond, 3091 feet high.

**Ben Wy'vis**, a mountain in Ross-shire, 3422 feet above the sea.

**Ber'vie or Inverber'vie**, a small burgh in Kincardineshire. Pop. 952.

**Ber'wickshire or the Merse**, an agricultural county in the S. E. of Scotland. Pop. 36,613.

**Ber'wick**. See England, p. 84.

**Blairgow'rie**, a town in Perthshire, finely situated on the Ericht. Pop. 3344.

**Borrowstounness' or Bo'ness'**, a seaport in Linlithgowshire, on the Forth. Pop. 3814.

**Braeri'ach**, a precipitous mountain in the W. extremity of Aberdeenshire, 4265 feet high.

**Brech'in**, a manufacturing town in the county of Forfar. Pop. 7179.

**Bridge of Allan**, a village beautifully situated on the Allan, 4 miles N. W. of Stirling, much resorted to for its mineral waters. Pop. 1803.

**Brod'ick**, a village on the east coast of Arran, situated at the head of Brodick Bay.—55, 36 N. 5, 7 W.

**Broom, Loch**, an extensive arm of the sea in Ross-shire, having some excellent harbours.

**Buchanness'**, a promontory in Aberdeenshire, the easternmost point in Scotland, near the remarkable perforated rocks called the *Bullers of Buchan*.—57, 28 N. 1, 46 W.

**Burgh Head**, a cape in Morayshire, with remains of ancient fortifications.—57, 43 N. 3, 28 W.

**Burnti'sland**, a seaport in Fife-shire, opposite Granton, now the principal ferry across the Frith of Forth. Pop. 3143.

**Bur'row Head**, a cape on the south coast of Wigtownshire.—54, 41 N. 4 20 W.

**Bute'shire**, a county comprising the islands of Bute, Arran, Inchmarnoch, and the Cumbrays, in the Frith of Clyde. Pop. 16,331.

**Bute**, the principal island, though not the largest, in Buteshire. It is distinguished for picturesque beauty and mild climate. Pop. 9306.—55, 51 N. 5, 4 W.

**CAIRNGORM'**, a mountain on the confines of the counties of Banff and Inverness, famous for its rock crystals; it is 4095 feet high.

**Cairntoul'**, a mountain on the confines of Aberdeen and Inverness shires, 4245 feet high.

**Caith'ness**, a county occupying the N.E. extremity of Scotland. A great

\* *Ben* is a Gaelic word, signifying a mountain.

herring-fishery is carried on from its coast. Pop. 41,111.

Cal'lander, a village in Perthshire, 16 miles N. W. of Stirling, beautifully situated on the Teith, and surrounded by romantic scenery. Pop. 884.

Camp'belton, a seaport in Argyllshire, near the S. extremity of Cantire, at the head of a beautiful bay. Pop. 6033.—55, 25 N. 5, 35 W.

Cantire', a peninsula forming the southernmost district of Argyll.

Cantire', Mull of, a promontory at the S. extremity of Cantire; it is 10 miles distant from Fair Head, on the coast of Antrim in Ireland.—55, 20 N. 5, 49 W.

Car'ron, a village in Stirlingshire, on the Carron, famous for its iron-works. Pop. 1035.

Castle Doug'las, a modern town in the stewartry of Kirkcudbright, near the Dee. Pop. 2261.

Cat'rine, a thriving village in Ayrshire, on the Ayr, with extensive cotton-works. Pop. 2484.

Clackman'nan, a small county on the N. side of the Forth. Pop. 21,450.

Clackman'nan, the county town of Clackmannanshire. Pop. 1159.

Clyde, a large river which rises in Clydeslaw, a hill in the parish of Crawford, Lanarkshire, passes through Glasgow, and falls into the Frith of Clyde.

Cold'steam, a town in Berwickshire, on the N. bank of the Tweed. It was the site of a nunnery. Pop. 1834.

Coll, one of the Hebrides, belonging to Argyllshire. Pop. 779.

Cor'sill Point, a promontory on the W. coast of Wigtownshire.—55, 0 N. 5, 9 W.

Crail, a seaport in Fife, at the mouth of the Frith of Forth. Pop. 1211.

Crieff, a town in Perthshire, delightfully situated near the north bank of the Earn. Pop. 3903.

Crom'arty, a county in the N. of Scotland, formed of several detached portions within the county of Ross, with which it is united for administrative purposes.

Crom'arty, a seaport, the county town of Cromartyshire, at the entrance of the Cromarty Frith. Pop. 1491.—57, 40 N. 4, 3 W.

Crom'arty Frith, a large, beautiful, and well sheltered inlet of the German Ocean, between the Moray and Dornoch Friths.

Cul'ten, a town in Banffshire, near which is Cullen House, a seat of the Earl of Seafield. Pop. 1818.

Cul'ross (commonly Coo'ross), a seaport in a detached portion of Perthshire, on the Frith of Forth. Pop. 517.

Cum'brays, two small islands in the Frith of Clyde, near the Ayrshire coast. A lighthouse is erected on the west side of Little Cumbray. Pop. 1242.—52, 43 N. 4, 57 W.

Cum'nock, Old, a village in Ayrshire, noted for its manufacture of wooden snuff-boxes. Pop. 2816.

Cu'par, a handsome town, the capital of Fifeshire, on the Eden. Pop. 5029.

Cu'par-An'gus, a town partly in Forfarshire, and partly in Perthshire, situated on the Isla. Here was an abbey founded by King Malcolm the Maiden about 1164. Pop. 1943.

DAL'KEITH, a town in Edinburghshire, between the North and South Esk, about 6 miles S. from Edinburgh. Adjoining the town is Dalkeith Palace, the principal seat of the Duke of Buccleuch. Pop. 5396.

Dee, a river in Aberdeenshire, which rises in Braeriach, and flowing through a picturesque valley (in the upper part of which is Balmoral Castle, a highland residence of the Queen), falls into the German Ocean at New Aberdeen, after a course of 90 miles.—A river which issues from Loch Dee on the borders of Ayrshire, and, flowing through Kirkcudbrightshire, falls into the Solway Frith.

Dev'eron, a beautiful river which forms, for a considerable distance, the boundary between the counties of Aberdeen and Banff, and flows into the German Ocean.

Dev'on, a river in Perthshire, rising in the Ochil Hills, and flowing to the Frith of Forth by a very circuitous course. It is remarkable for its romantic scenery.

Ding'wall, the county town of Ross-shire, at the head of the Cromarty Frith. Near it is Strathpeffer, a beautiful vale, with a mineral well, which is much frequented. P. 2084.

Dol'lar, a town in Clackmannanshire, beautifully situated on the Devon, at the base of the Ochil Hills, with an endowed academy founded in 1819. Pop. 1540.

Don, a river rising in the W. of

Aberdeenshire, and falling into the German Ocean near Old Aberdeen.

Doon, a river in Ayrshire, falling into the sea near Ayr; it has been rendered classical by the poetry of Burns.

Dor'nock, a seaport, and the county town of Sutherlandshire, on the N. of the Dornoch Frith. What is now its parish church, was the cathedral of the diocese of Caithness. Pop. 647.

Dor'nock Frith, an inlet of the German Ocean, between the counties of Sutherland and Ross.

Douglas, a district and village in the Upper Ward of Lanarkshire, which gave name to the heroic family of Douglas. Pop. 1426.

Doone (Doon), a village in Perthshire on the Teith, with a large cattle market, and extensive cotton manufactures; near it are the massive ruins of a royal castle. Pop. 1256.

Dumbar'tonshire, a county in the W. of Scotland. Pop. 52,034.

Dumbar'ton, the county town of Dumbartonshire, near the confluence of the Leven with the Clyde. It has a considerable trade in shipbuilding. Its ancient castle, formerly called Alclwyd, on a precipitous rock, was long of great strength. Pop. 8253. —55, 57 N. 4, 33 W.

Dumfries'shire, an important county in the S. of Scotland, comprising the districts of Eskdale, Annandale, and Nithsdale. Pop. 75,878.

Dumfries', a handsome town, the capital of Dumfriesshire, situated on the Nith, seven miles from the Solway Frith. Here is the burial-place of Robert Burns; and here, in 1306, Bruce killed Red John Cumyn of Badenoch. Pop. 14,023. —55, 4 N. 3, 36 W.

Dunbar', a seaport in Haddingtonshire, at the mouth of the Frith of Forth, with a large trade in herrings. Its castle, now in ruins, was in ancient times a place of great strength. Here the Scots were defeated, in 1296, by King Edward I. of England, and in 1650 by Oliver Cromwell. Pop. 3516. —56, 0 N. 2, 30 W.

Dunblane', a town in Perthshire, on the Allan, with the remains of a cathedral, and a library founded by Bishop Leighton. Near this was fought the battle of Sheriffmuir in 1715. Pop. 1709.

Dun'canbay Head, a promontory

in Caithness, the N. E. extremity of Great Britain. —58, 89 N. 3, 0 W.

Dundee', a seaport in Forfarshire, on the Frith of Tay. It carries on a great trade, chiefly with the Baltic, and has extensive manufactures of jute and coarse linens. Pop. 90,417. —56, 27 N. 2, 58 W.

Dunferm'line, a flourishing town in the W. of Fife, noted for its beautiful manufacture of damasks and diapers. Here are the remains of an ancient abbey (which was the burial-place of the Scottish kings from the end of the eleventh to the middle of the fourteenth century), and of a royal palace (where King Charles I. was born in 1600). In the abbey church, in 1818, the tomb and skeleton of Robert Bruce were discovered. Pop. 13,506.

Dunkeld', a town in Perthshire, on the north bank of the Tay, with an ancient cathedral, situated amidst romantic scenery. Pop. 929.

Dun'net Head, a promontory in Caithness, the most northerly point of Great Britain. —58, 40 N. 3, 21 W.

Dunse, the principal town in Berwickshire, between the Blackadder and the Whitadder. Pop. 2556.

Dy'sart, a seaport in Fife, with a considerable trade in coals. Pop. 8066.

ED'INBURGHSHIRE, or Mid-Lothian, the metropolitan county of Scotland, on the S. of the Frith of Forth. Pop. 273,997.

ED'INBURGH, the metropolis of Scotland, the seat of the law-courts and of a celebrated university, is situated  $1\frac{1}{2}$  mile from the S. shore of the Frith of Forth, and surrounded by scenery singularly varied and grand, the Calton Hill, Arthur Seat, and Salisbury Crags, being prominent objects in the landscape. The city is divided into the Old Town and the New Town; in the former, the palace of Holyrood, and the Castle on the summit of a precipitous rock, are places of great historical interest. The New Town, on the north, built according to a regular plan, within the last hundred years, is distinguished by the elegance of its buildings, streets, and squares. Pop. 168,121. —55, 57 N. 3, 10 $\frac{1}{2}$  W.

Ed'nam, a village in Roxburghshire, N. E. of Kelso, on the Eden, the birthplace of Thomson the poet. Pop. 599 p.

El'don Hills, in Roxburghshire,

a beautiful hill with three conical peaks, commanding a very extensive prospect.

El'gin or Mor'ay shire, a county on the south of the Moray Frith. Pop. 42,695.

El'gin, an ancient city, the capital of Elgin or Moray shire, on the Lossie, about five miles from its mouth. Its ancient cathedral is one of the most magnificent ruins in Scotland. Pop. 7543.—57, 38 N. 3, 21 W.

Earn, a river in Perthshire, issuing from a beautiful lake of the same name, and falling into the Tay below, Perth.

Er'icht, a lake partly in Perthshire and partly in Inverness-shire.

Esk, the name of several rivers. One rises in the N. of Dumfriesshire, and flows to the Solway Frith. In Mid-Lothian, the North Esk joins the South Esk below Dalkeith, and falls into the Frith of Forth at Musselburgh. In Forfarshire, the North Esk has its source in the Grampian Mountains, and falls into the sea 3 miles N. of Montrose. The South Esk also rises among the Grampians, and falls into the sea at Montrose.

E'tive, Loch, an inlet of the sea in Argyllshire, 20 miles long.

FAIR ISLE, belonging to the Shetlands, lying between that group and the Orkneys. Pop. 380.

Fal'kirk, a town in Stirlingshire, noted for its large cattle-markets, called Trysts. Here Sir William Wallace was defeated by Edward I. in 1298; and here the Pretender's army gained a victory over the Royalists in 1746. Pop. 9030.

Fal'kland, a town in Fifeshire, with beautiful remains of an ancient palace of the kings of Scotland. Here the Duke of Rothesay, the eldest son of King Robert III., died in prison in 1400: and here King James V. died of a broken heart in 1542. Pop. 1184.

Fife'shire, a county of Scotland, forming a peninsula between the Friths of Forth and Tay. P. 154,770.

Fifeness', a cape at the eastern extremity of Fife, from which a dangerous ridge, called the Carr Rock, projects into the sea.—56, 17 N. 2, 35 W.

Findhorn', a small seaport in Elginshire, at the mouth of the Findhorn. Pop. 891.

Fine, Loch, an arm of the sea in

Argyllshire, about 40 miles long and from 2 to 4 broad.

Foch'abers, a thriving town in Elginshire, near the mouth of the Spey, with a good public school; in the vicinity is Gordon Castle, the stately seat of the Duke of Richmond. Pop. 1145.

For'far or An'gus, a county N. of the Tay, noted for its breed of cattle. Pop. 204,425.

For'far, the county town of Forfarshire, situated in the valley of Strathmore. Of old the Scotch kings had a palace here. Pop. 9258.

For'es, a town in Elginshire, near which is a remarkable sculptured obelisk. Pop. 3508.

Fort George, pop. 197; Fort Augustus; Fort William, pop. 1104; a range of fortresses in Inverness-shire, erected to overawe the Highland clans. The two last have been dismantled.

Forth, anciently *Bodotria*, one of the principal rivers of Scotland, rises in Ben Lomond, and expands into a large frith before uniting with the German Ocean.

Fortrose', a seaport in Ross-shire, on the N. coast of the Moray Frith, opposite Fort George. Here are the ruins of a fine cathedral built in the 14th century. Pop. 928.

Fra'serburgh, a seaport in Aberdeenshire, with a considerable trade in the herring fishery. Pop. 3101.

Fy'ers or Foy'ers, a river in Inverness-shire, which discharges itself into Loch Ness, remarkable for its stupendous falls, the upper of which is 70 and the lower 207 feet in height.

GALASHIELS', a town in Selkirkshire, on the Gala, near its confluence with the Tweed, noted for its manufacture of woollens. Pop. 6433.

Gal'loway, a large district in the south-west of Scotland, including the counties of Wigtown and Kirkcubright. It is famed for its breed of cattle.

Gal'loway, Mull of, a bold headland on the S. extremity of Wigtownshire, the most southerly point in Scotland.—54, 38 N. 4, 51 W.

Gir'van, a seaport in Ayrshire, with a considerable trade. Pop. 5921.

Glas'gow, the principal manufacturing and commercial city of Scotland, in Lanarkshire, on the Clyde. All the branches of the cotton manufacture are carried on upon the most extensive scale. It has also a great



foreign and colonial trade, large ship-building yards, a flourishing university, a fine cathedral, and many other handsome edifices. Pop. 894,864.—55, 51 N. 4, 16 W.

Gol'spie, a small seaport in Sutherlandshire. In the vicinity is Dunrobin Castle, the stately seat of the Duke of Sutherland. Pop. 876.

Gou'rock, a thriving village in Renfrewshire, 8 miles below Greenock, a great resort for sea-bathing. P. 2076.

Gram'plan Mountains, a chain stretching across the island, from Argyllshire to Aberdeenshire.

Grange'mouth, a seaport in Stirlingshire, near the junction of the Great Canal with the Frith of Forth. Pop. 1759.

Gran'ton, a village on the Frith of Forth, 8 miles from Edinburgh, with a fine pier and harbour. Pop. 465.

Green'law, the county town of Berwickshire. Pop. 800.

Green'ock, a seaport in Renfrewshire, with an extensive trade, at the mouth of the Clyde. Here James Watt was born in 1736. Pop. 42,098.—55, 57 N. 4, 44 W.

Gret'na-Green, a village in Dumfriesshire, near the English border, long noted for irregular marriages. Pop. 1620 p.

HAD'DINGTONSHIRE or East Lothian, a fertile county in the S. E. of Scotland, the inhabitants of which are distinguished for their skill and enterprise in agriculture. P. 37,634.

Had'dington, the county town of Haddingtonshire, with a large weekly market for grain. Here John Knox was born in 1505. Pop. 3897.

Ham'ilton, a manufacturing town in Lanarkshire, near the confluence of the Avon and the Clyde. The Duke of Hamilton's magnificent palace is close beside it. Pop. 10,688.

Haw'ick, a thriving manufacturing town in Roxburghshire, at the junction of the Teviot and Slitrig. Pop. 8191.

Heb'rides or Western Isles (anciently *Ebudes*), a range of islands, about two hundred in number, of which about seventy are inhabited, scattered along the western coast of Scotland.

Hel'ensburgh, a modern town in Dumbartonshire, on the Frith of Clyde, opposite Greenock, much frequented for sea-bathing. Pop. 4613.

Hoy, one of the Orkney Islands. The *Dwarf's Stone* in this island is a

remarkable relic of antiquity. Pop. 1535.

Hunt'ly, a town in Aberdeenshire, pleasantly situated on the Deveron. Pop. 8448.

INCHCOLM', a small island, with the ruins of a monastery, and an ancient oratory, in the Frith of Forth, opposite Aberdour in Fife. Pop. 7.

Inchkeith', a small island in the Frith of Forth, on which is a lighthouse, opposite Leith. Pop. 12.

Invera'ray, the county town of Argyllshire, finely situated near the head of Loch Fine. In the vicinity is Inveraray Castle, the principal seat of the Duke of Argyll. Pop. 972.—56, 15 N. 5, 4 W.

Inverkeith'ing, a seaport in Fife, on a fine bay in the Frith of Forth. Pop. 1817.

Inverleith'en, a village in Peeblesshire, on the N. bank of the Tweed, much resorted to for its mineral waters; it is believed to be the St Ronan's Well of Sir Walter Scott. Pop. 1130.

Inverness'shire, an extensive county in the N. W. of Scotland, traversed by Glenmore (the Great Glen), and a chain of lakes, in the line of the Caledonian Canal. It includes the districts of Badenoch and Lochaber, besides others of less importance. Pop. 88,888.

Inverness', the county town of Inverness-shire, and the capital of the Highlands, delightfully situated near the confluence of the Ness with the Moray Frith. Five miles N. E. is Culloden Moor, where the battle of Culloden was fought in 1746. Pop. 12,509.—57, 29 N. 4, 11 W.

Inveru'ry, a thriving town in Aberdeenshire, at the confluence of the Don and the Ury. A few miles westward, at Harlaw, the Highlanders and Islesmen were defeated by the Lowlanders in 1411. Pop. 2520.

Io'na or I'colmkill, a small island of the Hebrides, S. W. of Mull, famed as a retreat of learning and religion during the dark ages. It contains the remains of a famous monastery, founded by St Columba in the year 563. Pop. 264.—56, 21 N. 6, 25 W.

Ir'vine, a seaport in Ayrshire, near the mouth of the Irvine, with a large export trade in coals. Pop. 7060.

I'slay, one of the Western Isles, S. W. of Jura, is about 24 miles long and 18 broad. Pop. 10,332. (Bow-



more', a thriving town, is its principal port. Pop. 985.)—55, 50 N. 6, 12 W.

**JED'BURGH**, the county town of Roxburghshire, pleasantly situated on the Jed. Here are the remains of an ancient abbey. Pop. 8428.

**Johnstone**, a flourishing manufacturing town in Renfrewshire, on the Black Cart, with valuable coal-mines in the neighbourhood. Pop. 6404.

**Ju'ra**, one of the Western Isles, separated from Islay by the Sound of Islay, and from Scarba by the Gulf of Corryvreckan. It has three conical mountains called the Paps of Jura, the highest being 2566 feet. Pop. 844.—56, 0 N. 5, 54 W.

**KEITH**, a town in Banffshire, on the Isla. Pop. 2648.

**Kel'so**, a handsome town in Roxburghshire, beautifully situated at the confluence of the Tweed and the Teviot. Here are the ruins of a magnificent abbey. In the vicinity is Floors Castle, the seat of the Duke of Roxburghe. Pop. 4309.

**Ken**, a river in Kirkcudbrightshire, which expands into Loch Ken.

**Ket'terin, Loch**, a lake in Perthshire, 8 miles long and 1 broad, surrounded by mountains, and celebrated for the picturesque scenery of the *Trosachs*. Its waters have been conducted by tunnels and pipes to Glasgow for the use of that city.

**Kil'da, St**, a small rocky island, the most remote of the Hebrides,—about 60 miles distant from Harris. Pop. 78.—57, 49 N. 8, 37 W.

**Killie'crankie**, a celebrated pass in Perthshire, near the junction of the Tummel and the Garry. Here, in 1689, the forces of King William III., under General Mackay, were defeated by the Jacobites, under the Viscount of Dundee, who was mortally wounded on the field.

**Kilmar'nock**, a town in Ayrshire, on a tributary of the Irvine, with considerable manufactures. Pop. 22,619.

**Kilwin'ning**, an ancient town in Ayrshire, with remains of a monastery. Pop. 8921.

**Kincardineshire** or the Mearns, a county in the E. of Scotland. Pop. 84,466.

**Kincardine**, a seaport in Perthshire, on the Forth. Pop. 2166.

**Kinghorn'** (King-gorn'), a town in Fife, opposite Leith. Near this,

King Alexander III. was killed by a fall from his horse in 1286. Pop. 1426.

**Kinnaids' Head**, a promontory on the coast of Aberdeenshire, with a lighthouse.—57, 44 N. 2, 1 W.

**Kinross'shire**, a small inland county to the W. of Fife. Pop. 7977.

**Kinross'**, the county town of Kinross-shire, at the W. extremity of Loch Lèven. Pop. 2088.

**Kirkcal'dy**, a seaport in Fife, on the Frith of Forth, with a considerable trade. Here Adam Smith was born in 1723. Pop. 10,841.

**Kirkcud'bright**, a maritime county on the Solway Frith. Pop. 42,495.

**Kirkcud'bright**, the chief town of the stewartry of Kirkcudbright, near the mouth of the Dee. Pop. 2552.—54, 49 N. 4, 7 W.

**Kirkintil'loch**, a town in Dumbartonshire, pleasantly situated on the Kelvin. Pop. 6096.

**Kirk'wall**, the chief town of Orkney, in the island of Pomona. It contains the ancient cathedral of St Magnus, and has a great annual fair. Pop. 3519.—59, 0 N. 2, 57 W.

**Kirriemuir'**, a thriving manufacturing town in Forfarshire. P. 3276.

**LAG'GAN LOCH**, a lake in Inverness-shire, 8 miles long.

**Lamlash'**, a small town at the head of the beautiful bay of Lamlash, on the east coast of the Isle of Arran.

**Lam'mermoor**, a range of hills between the shires of Haddington and Berwick.

**Lan'arkshire** or **Clydes'dale**, the most populous county in Scotland. It is divided into three districts, called the Upper, Middle, and Lower Wards. Pop. 631,566.

**Lan'ark**, the county town of Lanarkshire, near the celebrated falls of the Clyde. Here, in 1297, Sir William Wallace began his career in arms. (A mile distant is New Lanark, with extensive cotton-mills.) Pop. 5047.

**Lang'holm**, a town in Dumfriesshire, on the Esk, a few miles from the English border. Pop. 2558.

**Largs**, a town in Ayrshire, on the Frith of Clyde, a favourite resort for sea-bathing. Here the Danes under Haco were defeated by Alexander III. of Scotland in 1263. Pop. 2638.

**Lau'der**, a town in Berwickshire, situated on the Leader. Here, in 1482, the Scottish nobles seized and put to death the favourites of King James III. Pop. 1137.

**Laurencekirk'**, a considerable village in Kincardineshire, noted for its manufacture of wooden snuff-boxes. Pop. 1519.

**Leadhills'**, a village in Lanarkshire, occupied by lead-miners; it is the highest inhabited place in the south of Scotland, being 1300 feet above the sea. Near it is the birth-place of Allan Ramsay. Pop. 842.

**Leith**, a seaport on the Frith of Forth, about a mile and a half from Edinburgh, of which it may be considered the port. Pop. 33,628.—55, 58 N. 3, 10 W.

**Ler'wick**, the chief town of Shetland, in the E. of Mainland; it is a great fishing station. Pop. 3061.—60, 9 N. 1, 8 W.

**Le'ven, Loch**, a lake in Kinrossshire, containing four islands; on one of these are the ruins of Loch Leven Castle, in which Queen Mary was imprisoned in 1567.

**Lew'is**, an island, the largest of the Hebrides, belongs to Ross-shire; its southern peninsula is named Harris, and belongs to Invernessshire. Pop. 23,666.

**Lew'is, Butt of**, the most northerly point of the island of Lewis.—58, 32 N. 6, 22 W.

**Linlith'gowshire**, or West Lothian, a county lying along the S. side of the Frith of Forth. Pop. 38,645.

**Linlith'gow**, the county town of Linlithgowshire, with the ruins of a noble palace, in which Queen Mary was born in 1542. Here the Regent Murray was assassinated by Hamilton of Bothwellhaugh in 1570. Pop. 3843.

**Linnhe (Leen), Loch**, a large arm of the sea in Argyllshire. It extends from the Sound of Mull to Coranferry, where it assumes the name of Loch Eil.

**Lochnagar'**, a mountain in Aberdeenshire, 3800 feet high, celebrated in the poetry of Lord Byron, who, when a child, spent some time in its neighbourhood.

**Lo'chy, Loch**, a lake in Invernessshire, in the line of the Caledonian Canal, 14 miles long.

**Lo'mond, Loch**, a beautiful lake, the largest in Britain, between Dumbartonshire and Stirlingshire, 24 miles long, and near its southern extremity, 7 miles broad. It is studded with more than thirty islands, and its scenery is highly picturesque.

**Long, Loch**, an arm of the sea, separating Argyll from Dumbartonshire.

**Lo'thian**, a fertile district on the S. of the Forth, divided into three counties,—Linlithgow or West Lothian, Edinburgh or Mid Lothian, and Haddington or East Lothian.

**Low'thers**, a lofty ridge of hills between Lanarkshire and Dumfriesshire, 2408 feet high.

**Luce Bay**, a large bay in the S. of Wigtonshire, deriving its name from the Luce, a river which falls into it.

**MAREE'**, a lake in Ross-shire, 12 miles long and 2 broad, beautifully studded with islands.

**Mary's Loch, St.**, a beautiful lake in Selkirkshire, 4 miles long, from which issues the river Yarrow.

**Mas'chline**, a town in Ayrshire, near the Ayr, celebrated by Burns, who long resided in its neighbourhood. Pop. 1414.

**May, Isle of**, a small island at the entrance of the Frith of Forth, with a lighthouse, and the remains of a priory. Pop. 17.—56, 11 N. 2, 33 W.

**Mal'rose**, a town in Roxburghshire, on the Tweed. Its abbey, founded by David I. in 1136, was the most beautiful in Scotland. In its vicinity is Abbotsford, the seat of Sir Walter Scott, whose library and study are preserved nearly as left at his death. Pop. 1141.

**Minch**, the sound or channel separating the island of Lewis from the mainland and the Isle of Skye.

**Moffat**, a pleasant town in Dumfriesshire, on the Annan, noted for its mineral waters. Pop. 1462.

**Montrose'**, a flourishing seaport in Forfarshire, at the mouth of the South Esk, over which there is a suspension bridge. Pop. 14,563.—56, 42 N. 2, 27 W.

**Mor'ay**. See Elgin.

**Mor'ay Frith**, a large inlet of the German Ocean, stretching between the counties of Ross and Cromarty on the N. and those of Elgin, Nairn, and Inverness on the S.

**Mull, Island of**, one of the Hebrides, 25 miles in length, separated from the mainland by the Sound of Mull. Pop. 6834.

**Mus'selburgh**, a town in Edinburghshire, about 6 miles S. E. of the capital, united to Fishermrow by bridges over the Esk. Here the Romans had a station; and near

this, at Pinkiecleuch, the Scots were defeated by the English in 1547. Pop. 7423.

**NAIRN'SHIRE**, a small county on the Moray Frith. Pop. 10,065.

Nairn, a seaport, the county town of Nairnshire, on the Moray Frith. Pop. 3435.

Ness, Loch, a lake in Invernessshire, 22 miles long, through which the Caledonian Canal passes.

Newburgh, a seaport in Fife, on the Frith of Tay. Pop. 2281.

Newton Stew'art, a modern town in Wigtownshire, on the Cree, with a thriving trade. Pop. 2535.

Nin'iana, St, a town in Stirlingshire, with considerable woollen manufactures. Pop. 1834.

Nith, a river which rises in Ayrshire, and entering Dumfriesshire, runs S. E. and falls into the Solway Frith below Dumfries.

North Ber'wick, a small seaport in the county of Haddington, with the ruins of a nunnery, at the foot of the conical hill called North-Berwick-Law. Pop. 1164.

O'BAN, a seaport in Argyllshire, on the W. coast, a central point for steam-boats passing to and from the Caledonian Canal and the Western Isles. Pop. 1940.—56, 27 N. 5, 27 W.

O'chil Hills, a range of hills stretching from the vicinity of Dunblane in Perthshire, in an easterly direction, into Fife. Benclough, the loftiest of the range, is 2352 feet high.

Ork'ney and Shet'land, a county in the N. of Scotland, consisting of the islands bearing these names. Pop. 64,065.

Ork'neys, anciently *Orcades*, a group of islands, 67 in number, of which 27 are inhabited, separated from the mainland by the Pentland Frith. They extend from 58° 43' to 59° 25' N. lat. and from 2° 20' to 3° 25' W. long. Pop. 32,895.

PAIS'LEY, a town in Renfrewshire, a great seat of the manufacture of silk and cotton goods. Here are the ruins of an abbey founded about 1163 by Walter Fitz-Alan, the progenitor of the royal house of Stuart. Pop. 47,406.

Pee'blesshire or Tweed'dale, a pastoral county in the S. of Scotland, lying along both sides of the upper course of the Tweed. Pop. 11,408.

Pee'bles, the county town of Peeblesshire, on the Tweed. Pop. 2045.

Pentland Frith, a strait separ-

ating the mainland from the Orkney Isles, the navigation of which is at all times hazardous from its rapid currents and dangerous whirlpools.—58, 42 N. 3, 10 W.

Pentland Hills, a range of hills in Edinburghshire, of which East Carnethy Hill is 1806 feet high.

Perth'shire, a large county in the centre of Scotland, containing the districts of Menteith, Breadalbane, Rannoch, Athole, Strathearn, Stormont, Balquhiddy, and the Carse of Gowrie,—the last famed for its fertility. Pop. 133,500.

Perth, an ancient city, the capital of Perthshire, delightfully situated on the Tay, and surrounded by beautiful scenery. Here King James I. was murdered in 1437. Pop. 25,250.—56, 24 N. 3, 25 W.

Peterhead', a seaport in Aberdeen-shire, with a large trade, particularly in the fisheries. Pop. 7541.—57, 30 N. 1, 47 W.

Pitcaith'ly, a village in Strathearn, Perthshire, noted for its mineral waters.

Pomo'na or Mainland, the largest of the Orkney Isles, much intersected by arms of the sea. Pop. 17,193.—59, 0 N. 3, 10 W.

Port-Glas'gow, a seaport in Renfrewshire, on the Clyde, about 3 miles above Greenock. It has an excellent harbour, and enjoys a considerable trade. Pop. 7214.

Por'tobel'lo, a modern town on the Frith of Forth, 3 miles S. E. of Edinburgh, a great resort for sea-bathing. Pop. 4366.

Port Pat'rick, a seaport in Wigtownshire, with a good harbour. From this to Donaghadee is the shortest passage between Scotland and Ireland, the distance being only 21 miles. Pop. 1206.—54, 50 N. 5, 6 W.

Portsoy', a thriving seaport in Banffshire, on the Moray Frith., Pop. 1903.

Prestonpans', a small seaport in Haddingtonshire, near which the royal forces under Sir John Cope were signally defeated by the Highlanders in 1745. Pop. 1577.

QUEENSFERRY, South, a seaport in Linlithgowshire, long the chief ferry on the Frith of Forth. Pop. 1290.

RAN'NOCH, Loch, a lake in Perthshire, 10 miles long, discharging itself by the Tummel, at the eastern extremity.

**Ren'frewshire**, a county of Scotland, lying along the Clyde, a great seat of trade and manufactures. Pop. 177,561.

**Ren'frew**, the county town of Renfrewshire, on the Cart. Pop. 3228.

**Ros'lin**, a village in Edinburghshire, 7 miles S. W. from the capital, picturesquely situated on the North Esk, with a Gothic chapel, recently restored, and the ruins of an ancient castle. Pop. 467.

**Ross**, an extensive county in the N. of Scotland. It is mountainous, but has some fertile tracts. Pop., including Cromarty, 81,406.

**Roth'say**, the county town of Buteshire, in the Isle of Bute, on a beautiful bay, a place of considerable trade, and a great resort for sea-bathing. P. 7122.—55, 50 N. 5, 0 W.

**Rox'burgh** or **Te'viotdale**, a county in the S. E. of Scotland, on the borders of England. It took its name from the town and royal castle of Roxburgh, of which a few green mounds are now the only remains. King James II. was killed by the bursting of a cannon at the siege of Roxburgh Castle in 1460. Pop. 54,119.

**Ruth'erglen** (commonly **Rug'len**), a town in Lanarkshire, about 2½ miles from Glasgow. Pop. 8062.

**Ry'an, Loch**, an inlet of the sea in Wigtownshire, about 10 miles long, and from 2 to 4 broad.

**SALT'COATS**, a seaport in Ayrshire, with a considerable trade. Pop. 4778.

**San'da**, one of the Orkneys, about 12 miles long, and from 1 to 3 broad. Pop. 2145.

**San'quhar**, a town in Dumfriesshire, situated on the Nith. It has considerable manufactures of stockings and carpets. Pop. 1754.

**Saturnness'**, a cape on the coast of Kirkcudbright.—54, 52 N. 8, 35 W.

**Schiehal'ion**, a conical mountain in Perthshire, rising to the height of 3533 feet. Here Dr Maskelyne made experiments for ascertaining the power of mountains in attracting the pendulum, with a view to determine the mean density of the earth.

**Scone**, a village in Perthshire, on the Tay, noted for its abbey, where the kings of Scotland used to be crowned. The coronation stone was removed to Westminster Abbey by King Edward I., and still remains there. Pop. 2199 p.

**Sel'kirkshire** or **The Forest**, a pas-

toral county in the S. of Scotland. Pop. 10,449.

**Sel'kirk**, the county town of Selkirkshire, pleasantly situated near the junction of the Ettrick and Yarrow. **Mungo Park**, the African traveller, was born in this neighbourhood in 1771. At Philiphaugh, close by Selkirk, the Marquess of Montrose was defeated by the Covenanters in 1645. Pop. 3695.

**Shet'land** or **Zetland Isles**, supposed by some to be the ancient *Thulæ*, a group of islands, above 100 in number, 48 miles N. E. of the Orkneys. Only 30 of them are inhabited. They are the seat of an extensive cod-fishery, and lie between 49° 50' and 60° 50' N. lat. and between 0° 30' and 1° 55' W. long. Pop. 31,670.

**Shin, Loch**, a lake in Sutherland, about 14 miles in length and from 1 to 2 in breadth.

**Skye**, one of the largest of the Western Isles, remarkable for its lofty cliffs and sparsely cave. Pop. 18,751. (**Portree'**, its chief town, stands on the Sound of Raasay. Pop. 679.)—57, 20 N. 6, 20 W.

**Sol'way**, a frith forming the boundary between England and Scotland for upwards of 50 miles.

**Spey**, a large and rapid river which, after a course of 100 miles through the counties of Inverness, Banff, and Elgin, falls into the Moray Frith at Garmouth.

**Staffa**, a small island of the Hebrides, on the W. coast of Mull, celebrated for its basaltic columns and caverns. The remarkable cave, which has received the name of Fingal, is 66 feet high, 42 wide, and 227 feet long.—56, 28 N. 6, 20 W.

**Stew'arton**, a thriving manufacturing town in Ayrshire, on the Irvine. Pop. 3145.

**Stinchar** (**Stin'shar**), a river in Ayrshire, which falls into the sea at Ballantrae.

**Stir'lingshire**, a county of Scotland, between the Friths of Forth and Clyde. Pop. 91,926.

**Stir'ling**, the county town of Stir'lingshire, with a celebrated ancient castle, commanding a noble prospect of the Forth. It was a favourite residence of the Scottish kings. Here, in 1297, the Scots under Sir William Wallace defeated the forces of King Edward I. of England. Pop. 18,707 —56, 8 N. 3, 55 W.

**Stoneha'ven**, a seaport, the county town of Kincardineshire. In the vicinity are the extensive ruins of Dunottar Castle, long the seat of the Earls Marischal of Scotland. Pop. 3009.

**Storn'oway**, a seaport in the island of Lewis, at the head of a bay on its E. coast, with a considerable trade in the white and herring fisheries. Pop. 2587.—58, 11 N. 6, 17 W.

**Strauraer'**, (rawr), a seaport of Wigtownshire, at the head of Loch Ryan. It possesses considerable trade, and has an excellent harbour. Pop. 6278.

**Stromness'**, a seaport in Pomona, one of the Orkney Islands. Pop. 1795.—58, 56 N. 3, 18 W.

**Suth'erland**, an extensive county in the N. of Scotland. In some of the streams in the Strath of Kildonan, in this county, a considerable quantity of native gold has been found. Pop. 25,246.

**TAIN**, a seaport in Ross-shire, on the S. shore of the Frith of Dornoch. Pop. 1779.—57, 51 N. 4, 3 W.

**Tar'betness'**, a cape in the E. of Ross-shire, formed by the Friths of Cromarty and Dornoch.—57, 51 N. 3, 48 W.

**Tay**, one of the largest rivers in Scotland, passes through Loch Tay, and, swelled by several fine streams, flows by Dunkeld and Perth, after which it is joined by the Earn, expands into a frith, and near Dundee mingles with the German Ocean.

**Tay, Loch**, a beautiful lake in Perthshire, receiving at its S. W. extremity the united stream of the Dochart and Lochy, and discharging its waters by the Tay. It is about 15 miles long, and from 1 to 2 broad.

**Teith**, a tributary of the Forth, composed of two branches which unite at Callander. It falls into the Forth at the Bridge of Drip, above Stirling.

**Te'viot**, a beautiful river, which rises on the borders of Dumfriesshire and joins the Tweed at Kelso.

**Thorn'hill**, a thriving village in Dumfriesshire, beautifully situated on the Nith. Pop. 1450.

**Thur'so**, a seaport in Caithness,

on the estuary of the river Thurso. Pop. 8426.—58, 85 N. 3, 82 W.

**Tin'to**, or **Tin'tock**, an isolated hill in Lanarkshire, rises 2308 feet above the level of the sea, and 1740 feet above the Clyde.

**Tiree'**, a small island, one of the Hebrides, noted for its beautiful marble. Pop. 3201.—56, 32 N. 6, 54 W.

**Tobermo'ry**, a modern seaport in the island of Mull, situated near the N. W. extremity of the Sound of Mull.—56, 38 N. 6, 1 W.

**Troon**, a thriving seaport in Ayrshire. Pop. 2427.

**Tweed**, one of the principal rivers of Scotland, rises in Tweedsmuir, on the confines of Peeblesshire, near the sources of the Clyde and Annan; it pursues an easterly course, passing Peebles, Abbotsford, and Melrose. Four miles below Kelso, it becomes the boundary between England and Scotland, and falls into the German Ocean at Berwick.

**UIST** (Wist), North and South, two islands of the Hebrides, belonging to Inverness-shire. Pop. of N. Uist, 8084; of S. Uist, 8406.

**Unst**, the most northerly of the Shetland Isles. Pop. 3042.

**WHIT'HORN**, a seaport in Wigtownshire, on the Bay of Wigtown, with the ruins of a cathedral, on or near the site of the first Christian church built in Scotland. Pop. 1628.

**Wick**, a seaport, the county town of Caithness-shire, at the mouth of a river of the same name, the chief seat of the Scotch herring-fishery. Pop. 7475.—58, 24 N. 3, 5 W.

**Wig'town**, a maritime county in the S. W. of Scotland. Pop. 42,095.

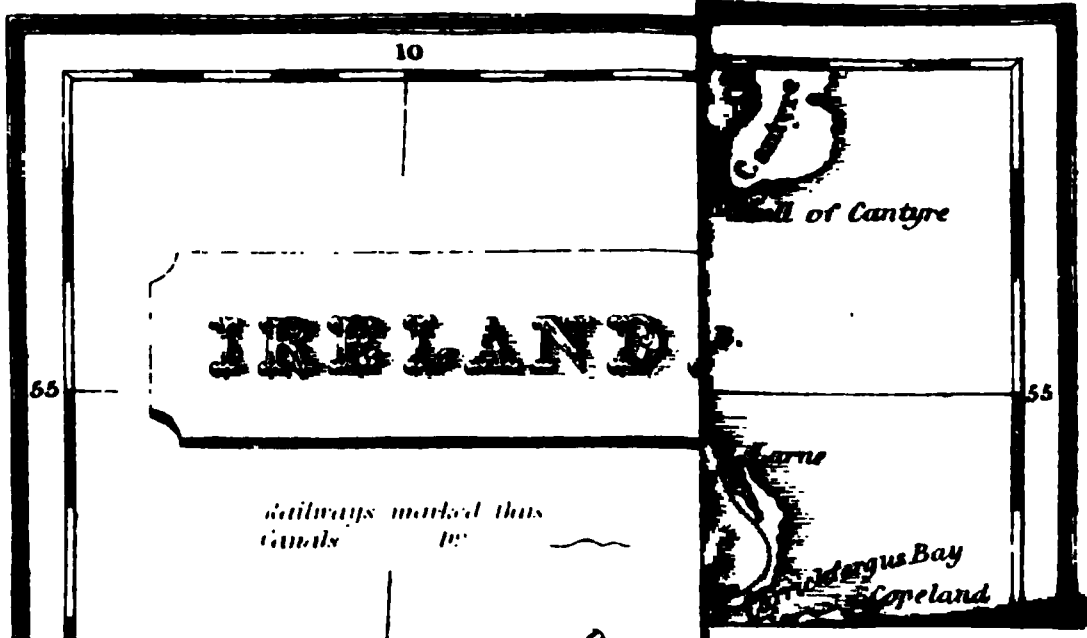
**Wig'town**, a seaport, the county town of Wigtownshire. Pop. 2027.—54, 52 N. 4, 24 W.

**Wig'town Bay**, a fine bay of the Solway Frith, running northward between the counties of Wigtown and Kirkcudbright.

**Wrath, Cape**, a dangerous promontory in Sutherlandshire, the N. W. point of the mainland of Scotland.—58, 37 N. 5, 0 W.

**Yell**, one of the Orkney Islands, divided from Mainland by Yell Sound. Pop. 2716.





## IRELAND

Is bounded N. W. and S. by the Atlantic Ocean; E. by St George's Channel, the Irish Sea, and the North Channel. It contains 32,447 square miles. The population in 1861 was 5,764,543.

Ireland is divided into four provinces,—**ULSTER**, **LEINSTER**, **CONNAUGHT**, **MUNSTER**;—which are subdivided into 32 counties, viz. :—

**ULSTER.**

Counties.	Chief Towns.
Donegal .....	Lifford, Donegal, Ballyshannon, Letterkenny.
Londonderry .....	Londonderry, Coleraine, Newtownlimavady.
Antrim .....	Carrickfergus, Belfast, Lisburn, Antrim, Ballymena, Larne.
Tyrone .....	Omagh, Dungannon, Strabane, Newtown-Stewart.
Down .....	Downpatrick, Newry, Dromore, Newtownards, Donaghadee.
Armagh .....	Armagh, Lurgan.
Monaghan .....	Monaghan, Clones, Carrickmacross.
Fermanagh .....	Enniskillen.
Cavan .....	Cavan, Cootehill, Belturbet.

**LEINSTER.**

Longford .....	Longford, Edgeworthstown, Granard.
Westmeath .....	Mullingar, Athlone, Kilbeggan, Castlepollard.
Meath .....	Trim, Navan, Kells.
Louth .....	Drogheda, Dundalk, Ardee, Carlingford.
Dublin .....	DUBLIN, Balbriggan, Kingstown, Skerries.
Wicklow .....	Wicklow, Arklow, Bray, Baltinglass.
Kildare .....	Athy, Naas, Kildare, Maynooth.
King's County .....	Tullamore, Philipstown, Parsonstown, Banagher.
Queen's County .....	Maryborough, Portarlinton, Mountrath, Mountmellick.
Carlow .....	Carlow, Tullow.
Kilkenny .....	Kilkenny, Callan, Thomastown.
Wexford .....	Wexford, New Ross, Enniscorthy.

**CONNAUGHT.**

Leitrim .....	Carrick-on-Shannon, Manor-Hamilton.
Sligo .....	Sligo.
Mayo .....	Castlebar, Ballinrobe, Ballina, Westport.
Roscommon .....	Roscommon, Boyle, Elphin.
Galway .....	Galway, Loughrea, Tuam, Gort, Ballinasloe.

**MUNSTER.**

Tipperary .....	Clonmel, Cashel, Tipperary, Carrick-on-Suir, Roscrea, Nenagh, Thurles, Cahir.
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Counties.	Chief Towns.
Clare.....	Ennis, Kilrush, Killaloe, Ennistimon.
Limerick .....	Limerick, Rathkeale, Newcastle.
Kerry .....	Tralee, Dingle, Killarney.
Cork .....	Cork, Bandon, Kinsale, Youghal, Mallow, Fermoy, Queenstown, Charleville.
Waterford.....	Waterford, Dungarvan, Lismore, Tallow.

**ISLANDS.** — Rathlin Isle, North Isles of Arran, Achil, Clare Island, South Isles of Arran, Valentia.

**BAYS, etc.** — Belfast Lough, Bays of Strangford, Dundrum, Carlingford, Dundalk, Dublin; Harbours of Wexford, Waterford, Cork; Bays of Dunmanus, Bantry, Kenmare, Dingle, Tralee, Galway, Clew, Sligo, Donegal; Lough Swilly, Lough Foyle.

**CAPIES.** — Malin Head, Fair Head, Howth Head, Wicklow Head, Carnsore Point, Cape Clear, Mizzen Head, Loop Head, Slyne Head, Achil Head, Urris Head.

**LAKES.** — Neagh, Erne, Killarney, Allen, Conn, Mask, Corrib, Ree, Derg.

**RIVERS.** — Shannon, Barrow, Nore, Boyne, Liffey, Slaney, Suir, Blackwater, Lee, Bandon, Bann, Lagan, Mourne, Foyle.

**MOUNTAINS.** — Mourne, Slieve Bloom, Wicklow, Magillcuddy's Reeks, Mangerton, Mount Nephin, Croagh Patrick.

#### REMARKS.

Ireland extends from 51° 26' to 55° 23' N. lat. and from 5° 24' to 10° 30' W. long. Its greatest length is 280 miles, and its greatest breadth 180 miles.

The centre of Ireland consists of a great low lying plain of limestone formation surrounded by mountains which extend along the coasts, the greatest elevation is on the west, the highest summit of Magillcuddy Reeks attaining a height of 3414 feet. The ancient forests of the country have disappeared, and in their place extensive bogs and morasses cover the surface, the largest of which is the Bog of Allen. The climate is mild but moist, and drizzling rains are frequent. The herbage is of a deep green, and hence has arisen the name of the *Emerald Isle*. A large extent of the surface is under pasturage.

In general the soil of Ireland is very fertile, but until recently the mode of farming was bad. The land was, in the first instance, rented from the proprietors by persons called middlemen, who let it to farmers, and these again parcelled it out in small portions to an inferior set of tenants. Each of the higher classes oppressed and ground its inferior; and the land was occupied by men without capital to improve it, whose necessities compelled them to force from it whatever it would yield for a miserable subsistence and the payment of their rack-rents. The failure of the potato crop in 1845 and following years has contributed greatly to the introduction of a better system of agriculture, and the Land Tenure Act has much facilitated the relation between landlord and tenant. The annual emigration is still, however, very large, amounting in ten years to  $1\frac{1}{2}$  million.

Ireland has many excellent harbours and other advantages for commerce; its coasts are so deeply indented that scarcely any place is more than 50 miles distant from the sea. It abounds in valuable minerals: limestone is found in almost every district; and coal, iron, lead, and copper, in various quarters. The beautiful marbles of Kilkenny, Donegal, and Galway, are well known. The *Giants' Causeway* is a most remarkable columnar basaltic formation on the northern coast of Antrim. The main lines of canal navigation are the Grand, Royal, and Ulster Canals. The earliest railway constructed in Ireland was the Dublin and Kingstown, which was opened in 1834. Railway communication now extends from side to side of the island, connecting all the chief cities and towns.

The great educational institutions are, the University of Trinity College, Dublin, and the Queen's University, including the Queen's Colleges of Belfast, Cork, and Galway. The Board of National Education was established in 1832; the number of teachers is now nearly six thousand, the number of scholars being about half a million.

Since the year 1800 Ireland has been united with Great Britain, and subject to the same laws. But the people, long oppressed, and restricted in their commerce and manufactures by severe and injudicious enactments, are still inclined to discontent. Religious distinctions are another cause of this unquiet disposition. The established form of religion is that of the Church of England; but four-fifths of the people are Roman-catholics: and although they now enjoy nearly complete toleration in the exercise of their own worship, and are admissible to *almost all civil offices*, they look with hostility

on the endowment of a church which they regard as heretical. In Ireland there were long four archbishops and eighteen bishops; but by an act passed in 1833, the numbers were reduced to two archbishops and ten bishops. The Archbishop of Armagh is primate of all Ireland. In Ulster, a large proportion of the people are Presbyterians, and their clergy receive an allowance from government.

Linen is the staple manufacture of Ireland, and is carried on to a considerable extent, particularly in the province of Ulster. Of late years the manufacture of cotton has been introduced. The Irish are a sprightly, warm-hearted, and ingenuous people. In the vivacity of their disposition, and the gayety of their manner, they resemble the French more than the English or Scotch. Hardy, daring, and heedless of danger, they may be ranked among the finest soldiers in the world. In science and literature many of them have obtained great eminence. They excel particularly in eloquent declamation.

#### EXERCISES.

How is Ireland bounded? What is its extent in square miles? Into how many provinces is it divided? How many counties do they contain? What are the counties in Ulster? In Leinster? In Connaught? In Munster? Name the principal towns in Donegal, in Londonderry, in Antrim, etc.

Name the principal islands of Ireland. Name its bays. Name its capes. Name the principal lakes. Name the principal rivers. Name the principal mountains. Where is Dingle, Coleraine, Downpatrick, Sligo, Navan, Enniskillen, Ennis, Youghal, Tuam, Tralee, Maryborough, Mullingar, Athy, Dundalk? etc.

Where is Slyne Head, Killarney Lakes, Lough Swilly, Urris Head, Malin Head, Lough Allen, Lough Derg? etc.

Between what degrees of latitude and longitude is Ireland situated? What are its greatest length and breadth? What is the nature of the climate of Ireland? What effect has this on its appearance? Is Ireland a mountainous country? Does it appear to have ever been covered with wood? By what is the place of its ancient forests now occupied? Of what description is the soil of Ireland? What were the faults in the mode of farming? What improvements have recently taken place? What canals and railways does it contain?

When was Ireland united in government with Great Britain? Why are the people in general inclined to discontent? What is another cause of their unquiet disposition? What is the established religion? Of what religious persuasion are the majority of the people? What is at present the number of archbishops and bishops? Who is the primate of all Ireland? What is the prevailing form of worship in Ulster?

What is the staple manufacture? What other manufacture has been lately introduced? What is the national character of the Irish?

What people do they resemble in disposition and manners? Are they good soldiers? Have they made any figure in science and literature? In what do they particularly excel?

## DESCRIPTIVE TABLE.

**ACH'IL**, an island 30 miles in circuit, belonging to the county of Mayo, from which it is separated by a narrow channel. Pop. 5776.

**Ach'Il Head**, a promontory forming the W. point of Achil Island.—53° 58' N. lat. 10° 14' W. long.

**Al'len**, Lough, an expanse of the Shannon, in the county of Leitrim.

**An'trim**, a maritime county in the province of Ulster. Its coasts are rocky and highly picturesque. Pop. 377,763.

**An'trim**, a town in the above county, at the N. E. extremity of Lough Neagh. Pop. 2138.

**Ar'dee**, an ancient town in Louth, on the Dee. Pop. 2925.

**Ard'fert**, a town in Kerry, once the seat of a bishop. Pop. 367.

**Ark'low**, a seaport in Wicklow, on the Avoca. Pop. 4760.

**Armagh'**, a county in the S. E. of Ulster. Pop. 190,066.

**Armagh'**, the capital of the above county, and the seat of the Archbishop of Armagh, primate of all Ireland. Pop. 8069.—54, 21 N. 6, 40 W.

**Ar'ran**, North Isles of, a group on the W. coast of Donegal.—South Isles of, a group at the entrance of Galway Bay, containing many interesting remains of the forts, churches, and houses of the primitive inhabitants of Ireland.

**Aske'aton**, an ancient town in Limerick, at the junction of the Shannon and Deel, with several fine ruins. Pop. 1637.

**Ath'boy**, a pleasant town in Meath, with some fine seats in the vicinity. Pop. 982.

**Athlone'**, a town on the Shannon, partly in Westmeath and partly in Roscommon. Pop. 6227.—58, 26 N. 7, 54 W.

**Athy'**, the county town of Kildare, intersected by the Barrow. Pop. 4124.—58, 0 N. 6, 58 W.

**Augh'rim**, a village in Galway, memorable for the signal victory gained by General Ginkle over the forces of James II. in 1691, which decided the fate of Ireland. Pop. 383.

**BALBRIG'GAN**, a thriving seaport in the county of Dublin, noted for the manufacture of imitation silk stockings of very fine texture. Pop. 2258.

**Balh'na**, a town in Mayo, pleasantly situated on the river Moy, over which is a bridge of 16 arches, which unites it to the town of Ardnaree. Pop. 5419.

**Ballinasloe'**, a thriving town partly in Galway, partly in Roscommon, famous for a large cattle fair. Pop. 3911.

**Ballinrobe'**, a town in Mayo. Pop. 2506.

**Ballycas'tle**, a seaport in Antrim, in the vicinity of romantic scenery and extensive coal-mines. Pop. 1626.—55, 12 N. 6, 15 W.

**Ballyme'na**, a town in Antrim, on the Maine, with a considerable linen trade. Pop. 6774.

**Ballymo'ney**, a town in Antrim, with good markets. Pop. 2603.

**Ballyshan'non**, a seaport in Donegal, beautifully situated at the mouth of the river flowing out of Lough Erne. Pop. 3197.—54, 30 N. 8, 10 W.

**Baltimore'**, a seaport in Cork, with an excellent harbour. Pop. 145.

**Bal'tinglass**, a town in Wicklow, in a beautiful vale on the Slaney, with extensive woollen and linen manufactures. Pop. 1304.

**Ban'agher**, a town in King's County on the Shannon. Pop. 1426.

**Ban'bridge**, a town in Down, on the Bann, with a considerable linen trade. Pop. 4033.

**Ban'don**, a town in the county of Cork, situated on the river Bandon, which falls into the sea at Kinsale. Pop. 6243.—51, 45 N. 8, 42 W.

**Ban'gor**, a town in Down, on Belfast Lough, the site of a monastery famous in the Dark Ages. P. 2531.

**Bann**, a river which rises in Down, passes through Lough Neagh, and falls into the sea four miles below Coleraine.

**Ban'try Bay**, a fine bay in the county of Cork, 30 miles long and

from 4 to 6 broad. Here, in 1796, a body of French troops effected a landing, but were taken prisoners.

Ban'try, a seaport in the county of Cork, at the head of Bantry Bay. Pop. 2438.—51, 41 N. 9, 27 W.

Bar'row, a river in Leinster, which rises in Queen's County, separates that county and Kilkenny on the W., from Kildare, Carlow, and Wexford, on the E.; and, after receiving the Nore and Suir, falls into Waterford harbour.

Belfast', a flourishing seaport in Antrim, at the head of Belfast Lough, with extensive manufactures of linen and cotton, and a great export trade. Here is one of the Queen's Colleges. Pop. 120,777.—54, 35 N. 5, 55 W.

Belfast' Lough or Carrickfer'gus Bay, an estuary at the mouth of the Lagan, on the E. coast of Antrim, affording safe anchorage for shipping.

Beltur'bet, a town in Cavan, on the Erne, in the vicinity of extensive linen manufactures. Pop. 2068.

Birr. See Parsonstown.

Black'rock, a town in the county of Dublin, a celebrated sea-bathing place, with many fine villas. Pop. 2923.—53, 18 N. 6, 13 W.

Black'water, a river which rises on the borders of Kerry, and, flowing through the counties of Cork and Waterford, enters the sea at Youghal Bay.

Boyle, a town in Roscommon, pleasantly situated on a stream of the same name. Pop. 3098.

Boyne, a river which rises in Kildare, and, flowing through Meath, falls into the sea below Drogheda. This river is famous for the decisive battle in which William III. defeated the troops of James II. in 1690.

Bray, a seaport in Wicklow. Pop. 4182.—53, 12 N. 6, 8 W.

CA'HIR, a thriving town in Tipperary, on the Suir, with the ruins of an ancient castle and abbey. P. 3456.

Cal'lan, a town in Kilkenny, on King's River, once a place of importance. Pop. 2331.

Cappoquin', an ancient town in the county of Waterford, on the Blackwater, with the ruins of a strong castle. Pop. 1774.

Carlingford, a town in Louth, on Carlingford Bay. Pop. 777.

Carlingford Bay, a fine haven in Louth, having 20 fathoms of water, but beset by dangerous rocks

Car'low, a county in Leinster, separated from Wexford by a range of mountains. Pop. 57,187.

Car'low, the county town of Carlow, beautifully situated on the Barrow. Pop. 8742.—52, 51 N. 6, 54 W.

Carn'sore Point, in Wexford, the S. E. point of Ireland.—52, 11 N. 6, 23 W.

Carrickfer'gus, a seaport, and the county town of Antrim, on Belfast Lough. It is a place of great antiquity, and has a strong castle, situated on a rock projecting into the sea. Pop. 4028.—54, 43 N. 5, 49 W.

Carrickfer'gus Bay. See Belfast Lough.

Carrickmacross', a town in Monaghan. Pop. 2070.

Car'rick-on-Shan'non, the county town of Leitrim. Pop. 1587.

Car'rick-on-Suir, a town in Tipperary, with extensive woollen manufactures. Pop. 6536.

Cash'el, a city in Tipperary, and an ancient episcopal see. It lies at the foot of a remarkable eminence, called the Rock of Cashel, rising abruptly from the plain, and crowned with the ruins of a cathedral and other ancient buildings. Here, in 1172, a council was held which decreed that the Irish church should be reformed on the model of the English church. Pop. 4374.

Castlebar', the county town of Mayo, with considerable trade, particularly in linens. Pop. 3073.

Castleblay'ney, a town in Monaghan, in a beautiful district. Pop. 1822.

Castle-Com'er, a handsome town in Kilkenny, with a great trade in coals and butter. Pop. 1435.

Castle-Pol'lard, a town in Westmeath. Pop. 1013.

Cav'an, an inland county in Ulster. Pop. 153,906.

Cav'an, the county town of Cavan, situated on a small stream of the same name. Pop. 3209.

Charles'ville, a handsome town in Cork, with a good trade. Pop. 2468.

Clare, an island at the mouth of Clew Bay, off the coast of Mayo.

Clare, a county in the N. of Munster. Pop. 166,805.

Clare, a town in Mayo. Pop. 1323.

Clear, Cape, a promontory in the S. of Cape Clear Island, off the coast of Cork, about six miles from the mainland, and surmounted by a lighthouse.—51, 26 N. 9, 29 W.

**Clew Bay**, a bay in Mayo, 12 miles long and 7 broad.

**Clo'gher**, an ancient city in Tyrone, formerly the seat of a bishop—now reduced to a straggling village. P. 389.

**Clonakil'ty** a thriving town in the county of Cork, with a great trade in linen. Pop. 3108.

**Clones**, a town in Monaghan, with some interesting antiquities. Pop. 2390.—54, 12 N. 7, 13 W.

**Clonmel'**, the county town of Tipperary, pleasantly situated on the Suir. Pop. 11,774.—52, 21 N. 7, 41 W.

**Cloyne**, a town in Cork, and a bishop's see, united to that of Cork and Ross. Pop. 1434.

**Coleraine'**, a town in Londonderry, on the Bann, noted for the manufacture of linen. Pop. 5631.—55, 8 N. 6, 43 W.

**Conn**, a lake of considerable extent in the county of Mayo.

**Con'naught**, a province in the W. of Ireland. It continued a distinct kingdom till the reign of Henry IV. of England. It is still the rudest and most unimproved part of Ireland. Pop. 913,135.

**Cooks'town**, a town in Tyrone, with good markets. Pop. 3257.

**Cootehill'**, a town in Cavan, with excellent linen markets. Pop. 1994.

**Cork**, a county in Munster, the most important of Ireland in extent and population. Pop. 544,818.

**Cork**, the capital of the county of Cork, is an important city, at the mouth of the Lee, on one of the safest and finest harbours in Europe. It possesses great trade, particularly in the export of grain and all kinds of provisions. Here is one of the Queen's Colleges. Pop. 80,121.—51, 55, N. 8, 26 W.

**Cor'rib**, a beautiful lake in Galway, 24 miles long and about 4 broad, studded with islands.

**Cove**. See Queenstown.

**Croagh Pat'rick**, a mountain in Mayo, on the S. E. of Clew Bay, 2000 feet above the level of the sea.

**DERG**, Lough, a lake formed by the expanse of the Shannon, separating Galway and Clare from Tipperary, 18 miles long and 4 broad.—Another lake in Donegal, a famed religious pilgrimage of the Roman-catholics.

**Der'ry**. See Londonderry.

**Dingle**, a seaport in Kerry, on Dingle Bay, the most westerly town in Ireland. Pop. 2260.—52, 9 N. 10, 16 W.

**Donaghadee'**, a seaport in Down, on the Irish Channel, 21 miles distant from Portpatrick in Scotland. Pop. 2671.—54, 38 N. 5, 33 W.

**Donegal'**, a maritime county in the N. W. of Ulster. Here, at a place called Gartan, St Columba was born in the year 521. Pop. 237,906.

**Donegal'**, a town in the county of Donegal, on a bay of the same name, with a fine old castle. Pop. 1541.—54, 39 N. 8, 6 W.

**Doneraile'**, a town in the county of Cork, seated on the Aubeg; the scenery in the vicinity is much admired. Pop. 1475.

**Down**, a maritime county in the S. E. of Ulster. Pop. 300,127.

**Downpat'rick**, the county town of Down, the see of the Bishop of Down, Connor, and Dromore—celebrated as the place of St Patrick's interment. Pop. 3840.—54, 20 N. 5, 43 W.

**Dro'gheda**, a seaport, and the county town of Louth, intersected by the Boyne. In 1649 it was stormed by Cromwell, who made a terrible slaughter of the inhabitants. In 1495 a parliament held here passed a statute called Poyning's Law, by which it was declared that no acts should be passed by the Irish Parliament which had not been approved by the king of England and his council. Pop. 14,740.—53, 44 N. 6, 20 W.

**Dromore'**, a town in the county of Down, formerly the seat of a bishop. Pop. 2531.

**Dub'lin**, the metropolitan county, in the province of Leinster. Pop. 410,252.

**DUB'LIN**, the capital of Ireland, and the see of an archbishop, beautifully situated on the Liffey. Its general elegance, and the magnificence of its public buildings, rank it among the finest cities in Europe. Pop. including suburbs, 305,293.—53, 23 N. 6, 20 W.

**Dub'lin Bay**, a spacious bay at the mouth of the Liffey, about a mile below Dublin.

**Dundalk'**, a seaport in Louth, on Dundalk Bay. Here is a considerable manufacture of cambric. At Fagher, near this town, Edward Bruce, brother of the king of Scotland, and himself crowned king of Ireland, was defeated and slain by the English in 1318. Pop. 10,428.—54, 0 N. 6, 23 W.

**Dundaalk' Bay**, in Louth, on the Irish Channel. At high water it is a considerable harbour, but at low water it is almost dry.

**Dundrum'**, a capacious bay on the coast of Down.

**Dungan'non**, a town in Tyrone, the ancient residence of the O'Neill's, kings of Ulster. Pop. 3994.

**Dungar'van**, a town in Waterford, situated on Dungarvan Bay, much resorted to for sea-bathing. P. 5898.—52, 5 N. 7, 38 W.

**Dunman'us Bay**, a spacious haven in Cork, S. of Bantry Bay.

**Dunman'way**, a town in the county of Cork, pleasantly situated in a valley, on the Bandon. Pop. 2068.—51, 44 N. 9, 4 W.

**EDGEWORTHSTOWN**, a pleasant town in Longford, distinguished as the birthplace of Miss Edgeworth, Pop. 860.

**El'phin**, an episcopal city in Roscommon, the birthplace of Oliver Goldsmith. Pop. 1007.

**En'nis**, the county town of Clare, on the Fergus, which here becomes navigable by large boats. Its abbey is one of the finest in the island. Pop. 7175.—52, 53 N. 8, 57 W.

**Enniscor'thy**, a town in Wexford, on the Slaney. Pop. 5896.

**Enniskil'len**, the county town of Fermanagh, delightfully situated on an island in Lough Erne. Pop. 5820.—54, 21 N. 7, 38 W.

**Ennistil'mon**, a town in Clare, on the Oyna, with a good export trade in corn. Pop. 1450.

**Erne, Lough**, a beautiful lake in Fermanagh, studded with numerous islands. It consists of two basins, the larger of which extends upwards of 20 miles by 12.

**Erne, River**, rises in Longford, crosses the county of Cavan, passes through Lough Erne, and flows into Donegal Bay.

**Eyre'court**, a town in Galway, with the ruins of a castle. Pop. 968.

**FAIR HEAD**, a promontory in Antrim, 636 feet above the sea. It is composed of basaltic pillars, some of them 280 feet in height, the largest yet discovered in any part of the world.—55, 14 N. 6, 9 W.

**Ferman'agh**, an inland county in Ulster. Pop. 105,768.

**Fermoy'**, a town in Cork, on the Blackwater, which is here crossed by a bridge of 18 arches. Pop. 8705.

**Feth'ard**, a town in Tipperary; it

was in former times fortified and surrounded by walls. Pop. 2308.

**Foyle**, a river, in Ulster, which, after passing Londonderry, expands into a fine bay, called Lough Foyle, sixteen miles long and nine broad.

**Fresh'ford**, a town in Kilkenny. Pop. 956.

**GAL'WAY**, an extensive maritime county in Connaught. Pop. 271,478.

**Gal'way**, the county town of Galway, on the broad stream by which the waters of Lough Corrib are discharged into Galway Bay. Here is one of the Queen's Colleges. Pop. 16,967.—53, 15 N. 9, 8 W.

**Gal'way Bay**, a large bay between Galway and Clare.

**Gi'ants' Causeway**, a celebrated promontory and natural curiosity on the N. coast of Antrim, composed of lofty and regular basaltic columns, at least 80,000 in number, which run out a great way into the sea.

**Gor'ey**, a town in Wexford, with extensive fisheries. Pop. 2673.

**Gort**, a town in Galway. P. 2102.

**Graigus**, a town in Kilkenny, beautifully situated on the Barrow, with the ruins of a stately abbey and castle. Pop. 1820.

**Gran'ard**, a neat town in Longford. Pop. 1671.

**HOWTH HEAD**, a promontory terminating the peninsula of Howth, on the north of Dublin Bay.—53, 22 N. 6, 4 W.

**KANTURK'**, a pleasant town in the county of Cork, near the Blackwater. Pop. 2286.

**Kells**, an ancient town in Meath, on the Blackwater. Pop. 3224.—53, 44 N. 6, 51 W.

**Kenmare' River**, an inlet of the sea in the S. W. of Kerry, about 40 miles long.

**Ker'ry**, a maritime county of Munster, separated from Clare by the Shannon. Pop. 201,800.

**Kilbeg'gan**, a town in Westmeath. Pop. 1283.

**Kildare'**, an inland county in Leinster. Pop. 90,946.

**Kildare'**, a town in the county of Kildare, noted for the *curragh* or common in its neighbourhood, the finest race-ground in Europe. Pop. 1399.

**Kilken'ny**, a county in the S. W. of Leinster. Pop. 110,341.

**Kilken'ny**, the capital of the county of Kilkenny, a city of considerable

importance, beautifully situated on the Nore. In its vicinity are fine marble quarries. Pop. 14,174.—52, 30 N. 7, 13 W.

Killa'la, a pleasant little town in Mayo, which the French occupied for a short time in 1798. Pop. 942.—54, 18 N. 9, 12 W.

Killaloe', an ancient town in Clare, on the Shannon, over which there is here a bridge of 19 arches. Pop. 1677.

Killar'ney, a thriving town in Kerry, much frequented on account of its lakes, which exhibit the most beautiful and picturesque scenery in Ireland. Pop. 5204.

Kilrush', a town in Clare, on the Shannon. Pop. 4593.

King's County, in the W. of Leinster, adjoining Tipperary on the S., and separated from Galway by the Shannon. It was named after King Philip of Spain, the husband of Queen Mary I. of England. Pop. 90,043.

Kings'court, a thriving little town in Cavan. Pop. 1020.

Kings'town, a town in the county of Dublin, with a fine harbour, and a railway to Dublin.—Mail steam-packets sail daily to and from Liverpool, and to and from Holyhead. Pop. 12,469.—53, 18 N. 6, 8 W.

Kinsale', a seaport in Cork, on a fine bay at the mouth of the Bandon. Pop. 4850.—51, 42 N. 8, 30 W.

LAG'AN, a river in Down, which falls into Belfast Lough.

Lanesborough, a village in Longford, pleasantly situated on the Shannon. Pop. 441.

Larne, a seaport in Antrim, on Lough Larne. Pop. 2768.

Lee, a river which issues from a lake in the county of Cork, flows eastward, and, passing the city of Cork, falls into the harbour.

Leigh'lin Bridge, a flourishing town in Carlow, on the Barrow, with the romantic ruins of an ancient castle. Pop. 1245.

Lein'ster, an extensive province in the S. E. It was the earliest settled by the English, contains Dublin, the capital, and is in general well cultivated. Pop. 1,457,635.

Lef'trim, a county in the N. E. of Connaught. Pop. 104,744.

Lef'trim, a small town in the above county, on the Shannon. Pop. 243.

Letterken'ny, a town in Donegal, on the Swilly, with a good trade in linen. Pop. 2165.

Lif'fey, a river which rises among

the Wicklow Mountains, and flows through Kildare and Dublin into Dublin harbour. So numerous are its windings, that although the distance from its source to its mouth is only 10 miles in a straight line, its actual course is 71.

Lifford, the county town of Donegal, on the Foyle, opposite Strabane. Pop. 593.

Lim'erick, a county in Munster, separated from Clare by the Shannon. Pop. 217,277.

Lim'erick, the capital of the county of Limerick, on the Shannon, a flourishing city, with an extensive trade, and considerable manufactures of lace, linen, woollen, and paper. It sustained a famous siege by the forces of King William III. in 1690 and 1691. Pop. 44,476.—52, 40 N. 8, 36 W.

Lis'burn, a fine town in Antrim, on the Lagan, with considerable manufactures. Pop. 7503.

Lismore', a town in Waterford, on the Blackwater, with a castle, in which the celebrated Robert Boyle was born. Pop. 2085.

Listow'el, a town in Kerry, on the Feale; its ancient castle is now in ruins. Pop. 2273.

Londonder'ry or Der'ry, a maritime county in the N. of Ulster. Pop. 184,209.

Londonder'ry, the capital of the above county, a city of great antiquity, pleasantly situated on the Foyle. It sustained a memorable siege against the whole Irish forces under James II., from December 1688 to August 1689. Pop. 20,875.—54, 59 N. 7, 20 W.

Long'ford, a county in the N. W. of Leinster. Pop. 71,694.

Long'ford, the county town of Longford, on the Camlin. Pop. 4872.

Loop Head, a promontory in the S. W. of Clare.—52, 34 N. 9, 57 W.

Loughrea', a well-built town in Galway. Pop. 3074.

Louth, a maritime county in the N. E. of Leinster. Pop. 75,973.

Louth, an ancient town, giving name to the county; it is now reduced to a village. Pop. 416.

Lur'gan, a pleasant town in Armagh, with extensive linen manufactures. Pop. 7772.

MACROOM', a town in the county of Cork, surrounded by picturesque scenery, with some romantic ruins. Pop. 3289.



**Magillcuddy's Reeks**, a mountain in Kerry, the highest in Ireland, rising from the W. shore of the Lake of Killarney to the height of 8414 feet above the sea.

**Mal'in Head**, a cape in Donegal, the most northerly point of land in Ireland.—55, 23 N. 7, 24 W.

**Mal'low**, a town in the county of Cork, on the Blackwater. Pop. 4841.

**Man'gerton**, a hill in Kerry, near Killarney Lakes, 2756 feet high.

**Man'or-Hamilton**, a pleasant town in Leitrim, with the ruins of an ancient castle. Pop. 1168.

**Ma'ryborough**, the capital of Queen's County. Pop. 2935.

**Mask**, a considerable lake in Mayo, on the borders of Galway.

**Maynooth'**, a town in Kildare, where a college for the education of the Roman-catholic clergy was established by the Irish parliament in 1795. Pop. 1497.

**May'o**, a maritime county in Connaught. Pop. 254,796.

**Meath**, a county in the east of Leinster. Pop. 110,373.

**Mid'dleton**, a town in the county of Cork, on the estuary of the Lee, with a considerable export trade. Pop. 3401.

**Mit'chelstown**, a handsome town in the county of Cork, situated on the river Funcheon. Pop. 2922.

**Miz'zen Head**, a cape in Cork, the extreme S. W. point of Ireland.—51, 27 N. 9, 50 W.

**Mon'aghan**, a county in the S. of Ulster. Pop. 126,482.

**Mon'aghan**, the county town of Monaghan. Pop. 8910.

**Mountmel'lick**, a neat town in Queen's County, chiefly inhabited by Quakers. Pop. 3062.

**Mountrath'**, a town in Queen's County, on the river Nore. Pop. 2086.

**Mourne**, a river in Tyrone, which joins the Foyle at Lifford.

**Mourne Mountains**, a range of hills in Down, of which Slieve Donard is 2796 feet above the sea.

**Mullingar'**, the county town of Westmeath, a great mart for wool. Pop. 5426.

**Mun'ster**, a province occupying the S. W. of Ireland, and containing the cities of Cork and Limerick. Pop. 1,513,588.

**NAAS**, a town of great antiquity in Kildare, on a branch of the Grand Canal. Pop. 2966.—53, 13, N. 6, 40 W.

**Nav'an**, a town in Meath, on the Boyne. Pop. 4187.

**Ne'agh**, Lough, remarkable for its petrifying quality, is a large lake in Ulster, surrounded by the counties of Antrim, Down, Armagh, Tyrone, and Londonderry. It is about 20 miles long, 12 broad, and covers 100,000 acres.

**Ne'nagh**, a town in Tipperary, on a stream of the same name; has a considerable trade. Pop. 6284.

**Neph'in**, a mountain in Mayo, 2639 feet above the sea.

**Newcas'le**, a town in the county of Limerick. Pop. 2452.

**New Ross**, a town in Wexford, on a navigable stream formed by the Nore and Barrow. Pop. 6567.

**New'ry**, a flourishing seaport and manufacturing town in Down, on the Newry. Pop. 12,188.—54, 10 N. 6, 19 W.

**Newtownards'**, a town in Down, at the head of Strangford Bay, with a diaper manufacture. Pop. 9543.

**New'townlim'avady**, a handsome town in the county of Londonderry, on the Roe. Pop. 2732.

**New'ton Stew'art**, a small town in Tyrone, on the Moyle. Pop. 1282.

**Nore**, a river which rises in Slieve Bloom Mountains, passes Kilkenny, and falls into the Barrow.

**O'MAGH**, the county town of Tyrone. Pop. 3662.

**PAR'SONSTOWN**, or Birr, a town in King's County, on a tributary of the Shannon. Pop. 5401.

**Pas'sage**, a town in the county of Cork, between Queenstown and the city of Cork. Pop. 2288.

**Phil'ipstown**, a town in King's County. Pop. 918.

**Portadown'**, a thriving little town in Armagh. Pop. 5528.

**Portafer'ry**, a town in Down, on Strangford Bay. Pop. 1960.

**Portar'linton**, a town in Queen's County, on the Barrow. Pop. 2581.

**Portrush'**, a seaport in Antrim, to the N. of Coleraine, with a good harbour. Pop. 1086.

**Portum'na**, a town in Galway, on the Shannon, with a noble castle. Pop. 1160.

**QUEEN'S COUNTY**, an inland county in Leinster, named in honour of Queen Mary I. of England, wife of King Philip of Spain. Pop. 90,650.

**Queens'town**, formerly Cove, a town in Great Island, in Cork harbour, with magnificent quays and other

conveniences for shipping. Pop. 8717.—51, 51 N. 8, 18 W.

**RATHFRI'LAND**, a town in Down, situated on an eminence, with large linen markets. Pop. 1916.

**Rathkeale'**, a town in Limerick, on the Deel, once fortified and defended by a castle. Pop. 2751.

**Rath'lin**, an island on the N. of Antrim, six miles long, and scarcely one broad.—55, 20 N. 6, 18 W.

**Ree**, a lake formed by the Shannon below Lanesborough, in which are some beautiful islands.

**Roscom'mon**, a county in the E. of Connaught. Pop. 157,272.

**Roscom'mon**, the county town of Roscommon. Pop. 2731.

**Roscrea'**, a flourishing town of Tipperary. Pop. 3725.

**SHAN'NON**, the principal river of Ireland, issues from Lough Allen in Leitrim, passes through Loughs Bofin, Ree, and Derg; separates Roscommon from Leitrim, Longford, Westmeath, and King's County,—Galway and Clare from Tipperary, Limerick, and Kerry; and falls into the Atlantic after a course of 254 miles.

**Sker'ries**, a small seaport in the county of Dublin, opposite the rocks called the Skerry Islands. Pop. 2257.—53, 35 N. 6, 7 W.

**Skibbereen'**, a town in the county of Cork, on the Ilen, with considerable linen manufactures. Pop. 3711.

**Sla'ney**, a river which rises in the Wicklow Mountains, and falls into Wexford harbour.

**Slieve Bloom**, a ridge of mountains in King's and Queen's Counties, 2265 feet high.

**Sli'go**, a county in Connaught. Pop. 124,845.

**Sli'go**, a flourishing seaport, and capital of the above county, situated on Sligo Bay. Pop. 10,693.—54, 17 N. 8, 25 W.

**Slyne Head**, a cape on the W. of Galway.—53, 24 N. 10, 16 W.

**Strabane'**, a town in Tyrone, near the confluence of the Finn and the Mourne. Pop. 4911.

**Strang'ford**, an ancient town in Down, near the entrance of the bay to which it gives name. Pop. 407.

**Strang'ford**, a beautiful bay in Down, 17 miles long and 5 broad.

**Suir**, a river which rises in Tipperary, and falls into Waterford harbour.

**Swil'ly**, Lough, a bay in Donegal,

affording one of the noblest harbours in Europe, nearly 25 miles long and 2 broad.

**TAL'LOW**, a town in Waterford, on the Bride. Pop. 1629.

**Tanderagee'**, a finely situated town in Armagh, in the centre of the linen manufacture. Pop. 1185.—54, 22 N. 6, 15 W.

**Templemore'**, a town in Tipperary, beautifully situated near the Suir, in a highly fertile district. Pop. 4137. 52, 48 N. 7, 49 W.

**Thom'astown**, a town in Kilkenny, on the Nore. Pop. 1426.

**Thurles**, a town in Tipperary, divided by the Suir. Pop. 4966.

**Tippera'ry**, a county in the N. E. of Munster. Pop. 249,106.

**Tippera'ry**, a town in the county of Tipperary. Pop. 5872.

**Tralee'**, the county town of Kerry, near the head of Tralee Bay. Pop. 10,309.—52, 15 N. 9, 43 W.

**Tramore'**, a handsome little town in the county of Waterford, on a fine bay. Pop. 1847.

**Trim**, the county town of Meath, on the Boyne. Pop. 2058.

**Tu'am**, a town in Galway, with considerable trade and manufactures. Pop. 4565.

**Tullamore'**, a handsome town, the capital of King's County. Pop. 4797.

**Tul'low**, a town in Carlow, on the Slaney. Pop. 2383.

**Tuskar Rock**, a dangerous rock on the coast of Wexford, with a lighthouse.—52, 12 N. 6, 13 W.

**Tyrone'**, an inland county in the province of Ulster. Pop. 238,500.

**UL'STER**, an extensive province in the N. of Ireland, and the chief seat of the linen manufacture. It has been in a great measure peopled by emigrants from Scotland, who profess the Presbyterian religion. Pop. 1,914,236.

**Ur'ris or Er'ris Head**, a cape on the N. W. coast of Mayo.—54, 16 N. 9, 58 W.

**VALEN'TIA**, an island off the coast of Kerry, 5 miles long and 2 broad.—51, 55 N. 10, 23 W.

**WA'TERFORD**, a county in the S. E. of Munster. Pop. 134,252.

**Wa'terford**, the capital of the county, and a flourishing seaport; with an excellent harbour. Pop. 23,293.—52, 16 N. 7, 7 W.

**Westmeath'**, an inland county in Leinster. Pop. 90,879.

**West'port**, a well-built seaport in

Mayo, on Clew Bay. Pop. 8819.—53, 48 N. 9, 29 W.

Wex'ford, a county in the S. of Leinster. Pop. 143,954.

Wex'ford, the county town of Wexford, at the mouth of the Slaney. Near this the handful of Anglo-Normans, who began the conquest of Ireland, landed in 1169. Pop. 11,673.—52, 20 N. 6, 27 W.

Wick'low, a maritime county in Leinster, distinguished for the beauty of its scenery. Pop. 86,479.

Wick'low, a seaport, and the county town of Wicklow. Pop. 3448. About two miles distant is Wicklow Head, with two lighthouses.—52, 58 N. 6, 1 W.

Wick'low Mountains, a range of mountains in the county of Wicklow, 3000 feet high; gold has been found in the bed of a torrent descending from Croghan Kinshela.

YOUGHAL (Yau'hal), a seaport in Cork, at the mouth of the Blackwater. Pop. 6514.—51, 57 N. 7, 49 W.

## NORWAY AND SWEDEN.

### NORWAY

Is bounded N. by the Arctic Ocean; W. by the Arctic and Atlantic Oceans; S. by the Skager Rack; E. by Sweden. It contains 121,807 square miles. It has a population of 1,701,756.

#### Divisions.

#### Chief Towns.

#### *Aggershuus or Christiania—*

Aggershuus.....CHRISTIANIA, Drobak.

Smaalehnen.....Moss, Frederickshald, Frederickstad.

Hedemarken .....Kongsvinger.

Christian.....Lessoë.

Buskerud.....Drammen, Kongsberg.

Jarlsberg and Laurvig.....Tonsberg, Laurvig.

#### *Christiansand—*

Bradsberg.....Skien, Porsgrund.

Nedenaes.....Arendal.

Lister and Mandal.....Christiansand, Mandal.

Stavanger .....Stavanger.

#### *Bergen—*

S. and N. Bergenhuus.....Bergen, Rosendal.

#### *Drontheim—*

Romsdal.....Christiansund.

S. and N. Drontheim.....Drontheim, Roraas.

#### *Nordland—*

Nordland.....Alstahoug.

Finmark or Norwegian

Lapland.....Tromsøe, Altengaard, Hammerfest.

ISLANDS.—Hitteren, Vigten Isles, Lofoden Isles, Ma-geroe.

BAYS.—Christiania, Hardanger, Drontheim, West Fiord.

CAVES.—North Cape, the Naze or Lindesnæs.

MOUNTAINS.—Dovrefield, Langèfield, Kiolen.

**LAKES.**—Miosen, Rands, Tyri, Fœmund.

**RIVERS.**—Glommen, Drammen, Lauven, Tana.

## SWEDEN

Is bounded N. by Finmark ; W. by Norway and the Cattegat ; S. by the Baltic ; E. by the Baltic, the Gulf of Bothnia, and Russia. It contains 168,042 square miles. Its population in 1867 was 4,195,681.

### Divisions.

### Chief Towns.

#### *Sweden Proper (or Svealand)*—

Stockholm.....	STOCKHOLM, Sigtuna, Öregrund.
Upsala.....	Upsala.
Westmanland.....	Westerås, Sala.
Södermanland.....	Nyköping, Tunaberg.
Örebro.....	Örebro.
Värmland.....	Carlstad.
Kopparberg.....	Fahlun, Hedemora, Elfvedal.

#### *Gotland*—

Östergötland.....	Linköping, Norrköping, Söderköping.
Calmar.....	Calmar, Westervick, Borgholm.
Jönköping.....	Jönköping.
Krönöberg.....	Wexjö.
Elekinge.....	Carlskrona.
Skaraborg.....	Mariestad, Skara.
Elfsborg.....	Wenersborg.
Göteborg and Bohus.....	Göteborg, Uddevalla.
Hälsingland.....	Hälsingborg.
Christianstad.....	Christianstad.
Malmöhus.....	Malmö, Lund, Helsingborg, Landskrona.
Gotland.....	Visby.

#### *Norrland*—

Norrbotten or North Bothnia.....	Piteå, Luleå.
Westerbotten or West Bothnia.....	Umeå, Torneå.
Wester Norrland.....	Härnösand.
Jämtland.....	Östersund.
Gefleborg.....	Gefle, Söderhamn, Hudiksvall.

**ISLANDS.**—Gotland, Öland.

**LAKES.**—Wener, Wetter, Mälare, Hielmar.

**RIVERS.**—Göta, Motala, Dahl, Torneå, Luleå, Clara, Piteå.

**FOREIGN POSSESSION.**—Island of St Bartholomew, in the West India.

## REMARKS.

Norway and Sweden, comprising the peninsula of ancient *Scandinavia*, extend from  $55^{\circ} 20'$  to  $71^{\circ} 11'$  N. lat. and from  $5^{\circ}$  to  $31^{\circ}$  E. long., being about 1150 miles in length; the breadth varying from 200 to 450 miles.

NORWAY.—The aspect of Norway is wild but picturesque and in many places sublime. Mountains separated by deep valleys or extensive lakes, immense pine-forests, rocks, and cataracts, are the striking features of the landscape. The great range of mountains (the *Mons Sevo* of ancient geography) stretching northward from the Naze to the North Cape, and dividing Norway from Sweden, is of various elevation. The Dovrèfield, the central and loftiest part of the range, rises in some places to the height of 8000 feet above the level of the sea. The rivers of Norway are numerous, but in general rapid and rock-bound; and, when swollen by the sudden melting of the snow, they overflow their banks with great fury, often sweeping corn, cattle, and cottages in one common ruin. The whole coast is deeply indented by gulfs and friths or *fiords*, and covered by a succession of islands, many of them vast insulated masses of rock, inhabited by innumerable birds which furnish the eider down of commerce. Among the Lofoden Isles is the dangerous whirlpool called the Malstrom.

So rude and barren is the soil of Norway in general, that though the inhabitants are industrious, only a small part is under tillage. In some districts however, particularly in the provinces of Bergen and Drontheim, there are tracts of considerable fertility. The crops are barley and oats, flax and hemp. Our common fruits are cultivated with success; but gardening is imperfectly understood.

In the interior of Norway, although the cold of winter is intense, the air is pure and serene, and conducive to health and longevity. On the coast the temperature is milder, being softened by the influence of the Gulf stream; but the atmosphere is often loaded with clouds and fogs. The shortness of the warm season in summer is compensated by the length of the day; for the sun is scarcely five hours below the horizon, even in the southern provinces; while, in the higher latitudes of Nordland and Finmark, there are weeks during which it does not set. Vegetation is accordingly extremely rapid; and, within three months, the corn is sown, ripens, and is reaped. In winter, again, the day is proportionally short,—and in the

northern regions there is an uninterrupted night of several weeks' duration, relieved only by moonlight brightly reflected from the snow, and by the aurora borealis, which in those high latitudes is peculiarly brilliant.

Many of the animals common to the other countries of Europe are to be found in Norway. The horses and horned cattle are small; but the former are hardy, and the latter easily fattened. Goats are more numerous than sheep. The rein-deer is the chief wealth of the Laplander, and its care is almost his sole occupation; the milk and flesh serve him for food, and the skins for clothing. The country abounds with game of various kinds, and its coasts with cod and shell-fish. Among its wild animals are the bear, lynx, wolf, and lemming, the last a species of rat, which, proceeding in immense swarms from the Kiolen Mountains towards the coast, devours in its progress every production of the soil.

The silver mines of Kongsberg, the copper mines of Roraas, and the iron mines of Arendal and other places, are rich and productive. These mines, with the pine-forests and the fisheries, supply the principal articles of the export trade.

The Norwegians are simple, hospitable, frank, and brave. They are not deficient in ingenuity, although their literature is still in a backward state. Christiania has a university founded by the Danes in 1811, and primary instruction is furnished in every parish by schoolmasters who are supported by a tax on the inhabitants. Schools of a higher class are found in all the principal towns. Norway was governed by its native monarchs till the year 1397, when it was annexed to Denmark by the famous *Union of Calmar*. It was ceded to Sweden in 1814, and is now governed by a viceroy of the Swedish monarch. It enjoys, however, a free constitution, of which it had been deprived under the Danish rule.

SWEDEN.—Much of what has been said of the aspect of Norway is equally applicable to Sweden. With the exception of the ridges on the west and north, it is not indeed a mountainous country; but it is diversified by lakes, rocks, cataracts, and green valleys. The forests occupy more than a half of the surface. The lakes which form the most striking feature in the landscape are, in general, vast sheets of pure transparent water, and cover about 4000 square miles.

The climate, though very cold in winter, is less severe than might be expected in so high a latitude, a portion of the kingdom lying within the arctic circle; and the steady equable

weather, and pure air, without violent winds or frequent thaws, render even winter a pleasant season. In summer the heat is great and the vegetation rapid. The trees and plants of Sweden are nearly similar to those of Great Britain, with the exception of the furze, the broom, and the walnut-tree, which cannot withstand the long and severe cold of a Swedish winter. Wheat can be raised in the southern provinces only, where our common fruit-trees likewise grow. Oats, rye, and barley, are more generally cultivated. Berries of different kinds grow spontaneously and luxuriantly.

Agriculture and manufactures are imperfectly developed; the former, however, has made great progress within the last thirty or forty years. Sweden has long been noted for its mineral treasures. At present not less than 25,000 persons find employment in their extraction. The copper-mines of Dalecarlia are particularly famous, and the iron of Danemora is of the best quality. The chief exports of Sweden are timber, iron, steel, copper, pitch and tar, alum, potash, and dried fish. The internal prosperity of the country has been much increased by canals, the chief of which, called the Gotha Canal, completed in 1832, passes through Lakes Wener and Wetter, and connects the Baltic with the Cattegat. More recently a railway has been constructed between Lake Mælar and Lake Wener.

The government of Sweden is a limited monarchy, the power of the king being circumscribed by the Diet or legislative assembly of the people. The established religion, both in Sweden and in Norway, is the Lutheran, the form of church government being episcopal. There are two universities, those of Upsala and Lund, and primary instruction is effectually provided for, since every adult person must be able to read before he can exercise any act of majority. There are at present upwards of 3000 elementary schools, exclusive of the gymnasia or provincial high schools, and other kindred institutions. In manners the Swedes are very much like the Norwegians. Although they cannot boast of very many great names in literature, in botanical science that of Linnæus is yet without a rival.

#### EXERCISES.

How is Norway bounded? What is its extent in square miles? What population does it contain? What are the divisions of Norway? Name the principal towns of Aggershuus or Christiania. Name the towns of Finmark. What are the principal islands of Norway? Name its principal bays. Name its capes. What are its mountains? What are its chief lakes? What are its principal rivers?

How is Sweden bounded? What is its extent in square miles? What is the amount of its population? Name its divisions. Name the towns of Norrland; of Sweden Proper; of Gothland. Where are Christiania, Tyri, Stockholm, Upsala, Pitea, Fahlun, Lofoden Isles, Dovrèfield, Dahl, Glommen, Tornea, Kiolen, Nykoping, Hitteren, Oland? etc. What foreign colony does Sweden possess?

Between what degrees of latitude and longitude are Norway and Sweden situated? What are their length and breadth? Describe the general aspect of Norway. What are the loftiest mountains of Norway? To what height do they rise? What is the character of the rivers? What is the appearance of the coast? Where and what is the Malstrom? In what state are the soil and agriculture of Norway? Are there any tracts of great fertility? What are the principal crops?

Describe the climate of Norway. How is the shortness of the warm season compensated? Within what space of time is the corn sown and reaped? Describe the winter of the northern regions. What is remarkable about the horses and horned cattle of Norway? What animal constitutes the principal wealth of the Norwegian Laplanders? What wild animals are found in Norway? Which of them is peculiarly destructive? What mines in Norway are particularly productive? What are its principal exports?

What is the national character of the Norwegians? What is the state of their literature? Mention the provisions for national education. Till what period did Norway continue under the government of its native monarchs? To what country was it then annexed? When was it ceded to Sweden? How is it now governed?

Is Sweden a mountainous country? How is it diversified? What is the principal feature in the landscape? What extent do the lakes occupy? Describe the climate of Sweden. What renders even the winters pleasant there? What country does Sweden resemble in its trees and plants? What are the exceptions to this similarity? In what provinces is wheat raised? What other crops are more general? What fruits grow spontaneously?

In what state are agriculture and manufactures? For what has Sweden been long noted? Which of its mines are particularly famous? What are its chief exports? What has promoted the internal prosperity of the country? Between what lakes has a railway been made?

What is the nature of its government? What is the established religion both in Sweden and in Norway? What is the state of education in Sweden? What people do the Swedes resemble in manners? Of what great name in botanical science can Sweden boast?

#### DESCRIPTIVE TABLE.

AG'GERSHUUS (hoos'), or Christiania, a province and bishop's see in Norway, the largest and most important in the kingdom, divided into six bailliwicks. Pop. 448,475.

Al'stahoug, a small town of Norway, capital of the province and bailliwick of Nordland, on a small island. It is the seat of the most

northerly bishopric in Europe. Pop. 500.—65° 54' N. lat. 12° 40' E. long.

Al'tengaard, a town in Finmark, at the head of a deep bay. Pop. 2000.—69, 55 N. 23, 8 E.

Aren'dal, a small seaport of Norway, on the S. coast of Christiansand. Pop. 2200.—58, 25 N. 8, 43 E.

BER'GEN, a province and bishop's



see in the S. W. of Norway, containing two balliwicks:—S. Bergenhuus, pop. 141,106; N. Bergenhuus, pop. 86,803.

Ber'gen, the capital of the above province, one of the most flourishing commercial towns in the kingdom. Pop. 80,402.—60, 24 N. 5, 18 E.

Blekinge', a maritime *laen* or government of Sweden, in the province of Gothland, with extensive fisheries. Pop. 127,708.

Borg'holm, the only town or landing-place in the island of Oland.

Both'nia, an extensive region on both sides of the Gulf of Bothnia. East Bothnia now belongs to Russia; West and North Bothnia to Sweden. See Pitea and Umea.

Both'nia, Gulf of, a branch of the Baltic, which separates Sweden from Finland.

Brads'berg, a balliwick of Norway, in the province of Christiansand. Pop. 82,037.

Busk'erud, a balliwick of Norway, in the province of Aggershuus. Pop. 99,275.

CAL'MAR, a fertile maritime government of Sweden, lying along the Baltic coast. Pop. 237,453.

Cal'mar, a seaport and capital of the above government, on the sound to which it gives name. It derives celebrity from the treaty of 1397, by which Queen Margaret united the kingdoms of Norway, Sweden, and Denmark. Pop. 9200.—56, 40 N. 16, 20 E.

Carlsco'na, a strong seaport of Sweden, the capital of the government of Blekinge, and the principal station of the Swedish navy. Pop. 17,171.—56, 9 N. 15, 35 E.

Carlstad', the capital of the government of Wermland, in Sweden, on the N. coast of Lake Wener, near the mouth of the Clara, with considerable trade. Pop. 4728.—59, 23 N. 13, 27 E.

Cat'tegat. See the Descriptive Table of Denmark.

Christ'ian, a balliwick of Norway, in the province of Aggershuus. Pop. 124,968.

CHRISTIA'NIA, the capital of Norway, and of the province of Aggershuus. It is situated at the head of Christiania Bay, which penetrates above 60 miles into the interior, and is studded with islands. It is the see of a bishop, and the seat of a university. Pop. 65,513.—59, 54 N. 10, 50 E.

Christiansand', a province and bishop's see in the south of Norway, now divided into four balliwicks. Pop. 328,563.

Christiansand', the capital of the above province, at the head of a deep bay. It has a fine Gothic cathedral, and considerable trade. Pop. 10,876.—58, 8 N. 7, 57 E.

Christianstad', a fertile government of Sweden. Pop. 225,419.

Christianstad', a fortified town on the Baltic, the capital of the above government. Pop. 6422.—56, 0 N. 14, 5 E.

Christiansund', a seaport on the W. coast of Norway, in Drontheim, with a fine harbour. Pop. 3163.—63, 5 N. 7, 49 E.

Clara, a river which traverses Lake Fœmund in Norway, and enters Lake Wener at Carlstad.

DAHL, a river in Sweden, which rises among the Norwegian mountains, and discharges itself into the Gulf of Bothnia, near Gefle.

Dalecar'lia, an ancient province of Sweden, traversed by the river Dahl, now the government of Kopparberg, famed for its rich copper-mines and the bravery of the peasants. Pop. 177,195.

Danemo'ra, a town, or rather a collection of villages, in Sweden Proper, celebrated for its iron-mines. Pop. 400.

Dov'refield or Dov'rines, the loftiest part of the Norwegian ridge of mountains. Sneehatten, the highest summit, is 7620 feet above the sea level.

Drammen (Dram), a river in the S. of Norway, down which immense quantities of timber are floated; it falls into the W. side of Christiania Bay.

Drammen, a seaport of Norway, in the province of Aggershuus, at the mouth of the Drammen, with a great export trade in timber. Pop. 13,870.—59, 39 N. 10, 28 E.

Dro'bak, a seaport of Norway, in the province of Aggershuus, on Christiania Bay. Pop. 1476.

Dron'theim, or Trond'heim, a province and bishop's see in the centre of Norway, containing three balliwicks. Pop. 295,877.

Dron'theim, a seaport and capital of the above province, situated on a fine bay; anciently the residence of the Norwegian kings. In its neighbourhood are rich copper-mines. P. 19,287.—63, 25 N. 10, 24 E.

**ELFS'BORG**, a *laen* or government in Sweden, in the province of Gothland. Pop. 282,258.

**Elfve'dal**, a town of Sweden, in the government of Kopparberg, on the Dahl, where there are valuable quarries of porphyry.—61, 15 N. 14, 0 E.

**FAH'LUN** (Fa'loon), the capital of the government of Kopparberg, in Sweden; in its neighbourhood there are rich copper-mines. Pop. 5126.—60, 35 N. 15, 38 E.

**Fin'mark**, an extensive region of Norway, in Nordland, called likewise Norwegian Lapland. P. 65,490.

**Fœ'mund**, a lake in Aggershuus, near the borders of Sweden.

**Fred'erickshald**, a town in Norway, in the province of Aggershuus; in besieging Frederickstein, its fortress, Charles XII. of Sweden was killed in 1718. Pop. 9219.—59, 7 N. 11, 21 E.

**Fred'erickstad**, a fortified town in the province of Aggershuus, at the mouth of the Glommen. Pop. 2673.—59, 12 N. 11, 0 E.

**GEF'LEBORG**, a fertile government of Sweden, lying along the Gulf of Bothnia. Pop. 146,256.

**Gefle**, a seaport, and the capital of the above government, with considerable trade. Pop. 12,908.—60, 89 N. 17, 8 E.

**Gelliva'ra**, a mountain in the extreme north of Sweden, 1800 feet high, and believed to consist wholly of excellent iron-ore.

**Glommen**, the largest river of Norway, rises in the Dovrèfield Mountains, and falls into the Skager Rack near Frederickstad.

**Go'tha**, a large river in Sweden, which issues from the S. extremity of Lake Wener, and falls into the Cattegat at Gottenburg.

**Go'tha**, Canal of, connecting the Baltic with the Cattegat at Gottenburg. By the completion of this canal in 1832, an internal navigation, by means of the lakes Wener, Wetter, etc., has been formed from sea to sea.

**Goth'land**, a large division of Sweden, forming the southern and most fertile portion of the monarchy, now divided into twelve governments.

**Goth'land**, a large island and government of Sweden, in the Baltic. Pop. 54,023.

**Got'tenburg** and **Bohus**, a government of Sweden, on the coast of the Cattegat, with fisheries and good pasture. Pop. 235,843.

**Got'tenburg**, a flourishing commercial city, the capital of the above government, on the Cattegat. A great many British merchants reside here. Pop. 48,217.—57, 42 N. 11, 56 E.

**HAL'LAND**, a government of Sweden, with extensive forests and salmon fisheries. Pop. 105,728.

**Halm'stad**, a strong seaport, the capital of the above government, on the Cattegat. Pop. 4071.—56, 43 N. 12, 48 E.

**Ham'merfest**, a small town on an island near the northern extremity of Finmark. Pop. 400.—70, 49 N. 23, 55 E.

**Hede'marken**, a bailiwick of Norway, in the province of Aggershuus. Pop. 120,442.

**Hede'mora**, a small town of Sweden, situated in a fertile part of Kopparberg. Pop. 1157.

**Hel'singborg**, a seaport in the government of Malmo, on the Sound, opposite Elsinore in Denmark. Pop. 6832.—56, 9 N. 12, 44 E.

**Hernosand**, a small seaport of Sweden, on the Gulf of Bothnia, the capital of the government of Wester Norrland. Pop. 3228.—62, 33 N. 18, 0 E.

**Hiel'mar**, a lake of Sweden, between lakes Wener and Mælar.

**Hit'teren**, a considerable island of Norway, on the coast of Drontheim. Pop. 3700.

**Hu'diksvall**, a town of Sweden, in the government of Gefleborg, on an inlet of the Gulf of Bothnia. Pop. 2743.

**Hueen'**, a small island at the entrance to the Sound, remarkable as having been the residence of Tycho Brahe.

**JAEMT'LAND**, a mountainous government of Sweden, in Norrland. Pop. 69,667.

**Jarls'berg** and **Laur'vig**, a bailiwick of Norway, in the province of Aggershuus. Pop. 85,433.

**Jonkop'ing**, an interior government of Sweden. Pop. 186,848.

**Jonkop'ing**, the capital of the above government, on the S. bank of Lake Wetter. Pop. 10,371.—57, 47 N. 14, 7 E.

**KIO'LEN**, the northern part of the great chain of mountains separating Norway from Sweden, the highest of which, Sulitelma, is 6200 feet above the sea.

**Kongs'berg**, a town of Norway, in Aggershuus, on the Lauven, cele-

brated for its silver-mines. Pop. 8935.—59, 39 N. 9, 37 E.

Kongs'vinger, a small town of Norway, in the province of Aggershuus.

Kop'parberg, a government of Sweden, comprehending the ancient province of Dalecarlia. Population 177,195.

Kron'oberg, a *laen* or government of Sweden, in the province of Gothland. Pop. 164,949.

LANDSCRO'NA, a seaport in the government of Malmohus, on the Sound, strongly fortified. Pop. 6918.—55, 5 N. 12, 48 E.

Lan'gêfield, the southern part of the great Norwegian chain of mountains, from the Naze to the N. of the province of Bergen. Skagstôl-tind, the loftiest summit, is 8101 feet above the sea.

Lap'land, the most northerly country of Europe, extending above 600 miles from the North Cape to the White Sea in Russia. It is divided into Norwegian, Swedish, and Russian Lapland; and although it contains about 130,000 square miles, the entire population does not exceed 60,000.

Laur'vig, a seaport of Norway, in Aggershuus, on the W. side of Christiania Bay, at the mouth of the Lauven, remarkable for its foundries. Pop. 3400.—59, 5 N. 10, 10 E.

Lau'ven or Lou'ven, a river of Norway, which rises in the Lange-field Mountains, passes Kongsberg, and falls into the Skager Rack at Laurvig.

Lessor', a small town of Norway, in the N. of the province of Aggershuus.

Lindesnæs. See Naze.

Linkop'ing, the chief town of the government of Oestergothland, in Sweden, in a fertile plain; its cathedral, if that of Upsala be excepted, is the finest in the kingdom. Pop. 6861.—58, 24 N. 15, 49 E.

Lofô'den Isles, a group of islands on the N. W. coast of Norway, the seat of an extensive cod and herring fishery, which employs, in the fishing season, 20,000 men. The group consists of five large and several small islands. Permanent population 4000.

Lu'lea, a town of Norrland, in the government of Norbotten, on the Gulf of Bothnia, near the mouth of the Lulea, a river which has a great

waterfall said to be half a mile broad. Pop. 1581.—65, 36 N. 22, 15 E.

Lund, a town in the government of Malmohus, on the Sound, the seat of a university. Pop. 10,268.—55, 42 N. 13, 10 E.

MÆ'LAR, a large lake of Sweden, extending from Stockholm 75 miles into the interior, and containing about 13,000 islands.

Ma'geroe, a bare and rocky island on the N. coast of Norwegian Lapland, inhabited by four or five families. The North Cape forms its northern extremity.

Mal'mo, a strongly fortified seaport, the capital of the government of Malmohus, on the Sound, with considerable trade and manufactures. Pop. 22,711.—55, 36 N. 13, 0 E.

Mal'mohus, the most southerly government of Sweden, rich in agricultural produce. Pop. 312,862.

Mal'strom, a famous whirlpool near the S. extremity of the Lofoden Isles.—67, 47 N. 11, 50 E.

Man'dal, a bailiwick of Norway, in the province of Christiansand. Pop. 73,785.—A town of the same name in the above bailiwick, on a bay near the Naze. Pop. 2850.

Ma'riestad, a town of Sweden, capital of the government of Skaraborg, on the E. shore of Lake Wener. Pop. 2337.—58, 42 N. 13, 50 E.

Mios'en, a lake of Norway, in Aggershuus, 60 miles long and 15 broad.

Moss, a town of Norway, in the province of Aggershuus, on Christiania Bay. Pop. 3132.—59, 25 N. 10, 37 E.

Mota'la, a river in Sweden, issuing from Lake Wetter, and falling into the sea below Norrkoping.

NAZE, a promontory forming the southern extremity of Norway.—57, 58 N. 7, 3 E.

Ned'enaes, a bailiwick of Norway, in the province of Christiansand. Pop. 68,052.

Norrbot'ten, a government of Sweden, in Norrland, comprehending North Bothnia. Pop. 194,058.

Nord'kyn, a promontory in Finmark, the most northerly point of continental Europe.—71, 8 N. 27, 58 E.

Norrkop'ing, one of the principal commercial towns of Sweden, in the government of Oestergothland, near the mouth of the Motala. Pop. 23,709.—58, 33 N. 16, 12 E.

Norr'land, a large division of Swe-

den, including North and West Bothnia, now divided into five governments.

Nordland, a province and bishop's see in the N. of Norway, comprising a bailiwick of the same name, and Finnmark. Pop. 189,846.

North Cape, in the island of Mageroe, the most northerly point of Norwegian Lapland, and of all Europe, excepting the northern extremity of Nova Zembla.—71, 10 N. 25, 50 E.

Nyköping, a maritime town, the capital of the government of Södermanland, on the Baltic. In its neighbourhood are mines of cobalt. Pop. 4825.—58, 45 N. 17, 1 E.

OESTERGOTH'LAND, a fertile agricultural government of Sweden. Pop. 256,001.

Oland, an island on the S. E. coast of Sweden, belonging to the government of Calmar: it is 80 miles long, and from 8 to 14 broad, and is separated from the mainland by the Sound of Calmar. Pop. 33,000.

Orebro', an inland government of Sweden, with mines of iron, copper, cobalt, etc. Pop. 166,792.

Orebro', the chief town of the above government, near the W. shore of the Lake Hielmar. Pop. 4300.—59, 17 N. 15, 9 E.

Oregrund', a small seaport of Sweden, in the government of Stockholm, on the Gulf of Bothnia. Pop. 684.

Ostersund', the chief place in the government of Jaemtland, on the E. shore of Lake Storsjön. Pop. 1500.

PITE'A, the chief town in the government of Norrbotten, on a river of the same name. Pop. 1587.—65, 20 N. 21, 40 E.

Pite'a, a river in Sweden, governments of Westerbothen and Norrbotten, enters the Gulf of Bothnia, near the town of Pitea.

Porsgrund, a seaport of Norway, in the province of Christiansand, on a bay of the Skager Rack, with considerable trade in timber. Pop. 1750.

RANDS, a lake in Norway, in the province of Aggershuus.

Romsdal, a bailiwick of Norway, in the province of Drontheim. Pop. 104,340.

Røraas, a town of Norway, in the province of Drontheim, at the base of the Dovrefield Mountains; near it are famous copper-mines. Pop. 8500.—62, 32 N. 11, 17 E.

Rosendal', a small town of Nor-

way, in the province of Bergen, on Hardanger Fiord, near which are rich copper-mines.

SA'LA, a town of Sweden, in the government of Westmanland, remarkable for its silver-mines. Pop. 3467.—59, 57 N. 16, 30 E.

Sigtuna, a small seaport of Sweden, in the government of Stockholm, on an arm of Lake Mælar. Pop. 459.

Ska'ra, a town of Sweden, in the government of Skaraborg. Pop. 1523.

Skar'aborg, a government of Sweden, between Lake Wener and Lake Wetter. Pop. 243,074.

Skien, a seaport of Norway, in the province of Christiansand, on a river flowing into a bay of the Skager Rack. Pop. 1900.—59, 10 N. 9, 30 E.

Smaal'eänen, a bailiwick of Norway, in the province of Aggershuus. Pop. 98,863.

Söderhamn', a seaport of Sweden, in the government of Gefleborg, on an inlet of the Gulf of Bothnia, with cloth manufactures and considerable trade. Pop. 2955.—61, 18 N. 17, 2 E.

Söderköping, a town of Sweden, in the government of Oestergothland, at the entrance of the Gotha Canal into the Baltic. Pop. 1579.—58, 28 N. 16, 20 E.

Södermanland, an agricultural government of Sweden. Pop. 135,000.

Stav'anger, a bailiwick of Norway, in the province of Christiansand. Pop. 104,868.

Stav'anger, the chief town of the above bailiwick, on the W. coast. Pop. 16,647.—58, 58 N. 5, 35 E.

Stockholm, the metropolitan government of Sweden, forming part of the ancient province of Sudermania, and containing the celebrated iron-mines of Danemora. Pop. 130,971.

STOCK'HOLM, the capital of Sweden, beautifully situated at the junction of Lake Mælar with the Baltic. It is built partly on the mainland, and partly on several islands connected by bridges. It forms the chief mercantile emporium of the kingdom, and has an excellent and capacious harbour. The principal public buildings are the royal palace, the cathedral of St Nicholas, and the hall of the Diet. The squares and public places are ornamented with numerous statues, and in the environs are beautiful parks and pleasure-grounds. Pop. 140,251.—59, 22 N. 18, 4 E.

**Storakopparberg.** See **Kopparberg.**

**Sweden Proper**, a large division comprehending the central portions of the kingdom, now divided into seven *læns* or districts.

**TA'NA**, a river of Lapland, which forms for 150 miles the boundary between Russia and Sweden, and falls into the Northern Ocean.

**Tons'berg**, a seaport of Norway, in the province of Aggershuus, on the W. side of Christiania Bay. Pop. 2200.—59, 18 N. 10, 23 E.

**Tor'nea**, a river of Sweden, has its source in the mountains of Norway, traverses Lake Tornea, and falls into the Gulf of Bothnia.

**Tor'nea**, a town formerly belonging to Sweden, but ceded to Russia in 1809: it stands on a small island in the river Tornea. Pop. 700.—65, 50 N. 24, 10 E.

**Tor'risdal**, a river in Norway, flowing into the Skager Rack at Christiansand.

**Trom'soe**, a town in Norway, the capital of Finmark, on a small island. Pop. 738.

**Tu'naberg**, a town of Sweden, in the government of Sodermanland, on the Baltic, with large iron-works. Pop. 2500.—58, 40 N. 17, 0 E.

**Tyri (Te'ree)**, a lake of Norway, in the province of Aggershuus, 15 miles long.

**UDDEVÅLA**, a town of Sweden, in the government of Gottenburg, on an inlet of the Cattegat. Pop. 4807.

**U'mea**, a seaport on the Gulf of Bothnia, the chief town of the government of Westerbotten, situated on a river of the same name. Pop. 1950.—63, 49 N. 20, 27 E.

**Up'sala**, a government of Sweden, with extensive iron-works. Pop. 98,651.

**Up'sala or Up'sal**, the capital of the above government, an ancient city, the see of an archbishop, and the seat of a celebrated university, in which Linnæus was a professor. It was long the residence of the Swed-

ish monarchs. Pop. 11,030.—59, 53 N. 17, 36 E.

**VIG'TEN ISLES**, a group of islands on the coast of Drontheim.

**WARDHUUS (Var'do)**, a small island, with a fort, on the N. E. coast of Finmark.—70, 22 N. 81, 7 E.

**Wen'er**, a large lake in Sweden, forming, by the Gotha Canal, one of the great channels of communication between Gottenburg and the Baltic.

**We'nersborg**, the chief town of the government of Elfsborg, on Lake Wener, near the efflux of the river Gotha. Pop. 4068.—58, 23 N. 12, 18 E.

**Wermland (Verm'land)**, a government of Sweden, on the Norwegian frontier, with great iron-mines. Pop. 264,393.

**Wes'teras**, a commercial town of Sweden, capital of the government of Westmanland, and a bishop's see, on Lake Mælar. Pop. 4661.—59, 35 N. 16, 32 E.

**Westerbot'ten**, a government of Sweden, in Norrland, comprehending West Bothnia. Pop. 90,815.

**Wester Norrland**, a maritime government of Sweden, in Norrland, lying along the coast of the Gulf of Bothnia. Pop. 130,885.

**Wes'tervick**, a seaport of Sweden, in the government of Calmar, on the Baltic, with a good harbour. Pop. 5330.—57, 46 N. 16, 38 E.

**West Fiord**, a great sound separating the Lofoden Isles from the mainland of Norway, through which the tides of the Northern Ocean rush with great force and rapidity.

**West'manland**, a government of Sweden, containing the rich silver-mines of Sala. Pop. 98,941.

**Wet'ter**, a lake in Sweden, 90 miles long and 16 broad, communicating with the Baltic by the river Motala.

**Wex'io**, the chief town of the government of Kronoberg. Pop. 164,949.—56, 44 N. 14, 51 E.

**Wis'by**, a seaport, the capital of the island of Gothland, and the see of a bishop. Pop. 6043.—57, 14 N. 18, 28 E.

## DENMARK

Is bounded N. by the Skager Rack ; W. by the German Ocean or North Sea ; S. by Schleswig-Holstein ; E. by the Cattegat, the Sound, and the Baltic. It contains 14,493 square miles. The population is 1,608,095.

Divisions.	Chief Towns.
Zeland, Mœen, & Samsee.....	COPENHAGEN, Roskilde, Elsinore, Stege.
Bornholm.....	Rønne.
Fuen, Langeland, & Aeroe.....	Odensee, Rudkiøbing, Aeroeskiøbing.
Laaland, Falster, etc. ....	Mariboe, Sakskov, Nykiøbing.
North Jutland.....	Aarhus, Aalborg, Randers.

In 1864 the undermentioned duchies were separated from Denmark, and have been annexed to the Prussian dominions.

Divisions.	Chief Towns.
Schleswig.....	Schleswig, Flensburg, Tønning.
Holstein.....	Kiel, Altona, Glückstadt, Rendsburg.
Lauenburg.....	Lauenburg, Ratzburg.

Including a population of 1,000,000.

**STRAITS, GULFS, AND BAYS.**—The Sound, the Great Belt, the Little Belt, Lym Fiord, Tannis Bay, Tammer Bay, Kjøge Bay, Præsto Bay, Seiers Bay.

**CAPE.**—The Skaw, the Horn.

**ISLANDS subject to Denmark.**—In the Atlantic, Iceland ; in the German Ocean or North Sea, the Faroe Islands.

**FOREIGN POSSESSIONS.**—In the West Indies, Santa Cruz ; in the Arctic Ocean, Greenland.

### REMARKS.

Denmark consists of an extensive peninsula (the *Chersonesus Cimbrica* of the ancients) and a number of islands to the east of the mainland. Exclusive of the isle of Bornholm, it lies between  $54^{\circ} 25'$  and  $57^{\circ} 44'$  N. lat., and between  $5^{\circ} 5'$  and  $12^{\circ} 31'$  E. long. Its length, from Laaland Island to the Skaw, is 210 miles ; its breadth, from Copenhagen to the North Sea, 175 miles.

The Danish peninsula is a vast plain, presenting little variety, and scarcely interrupted even by gentle swells. Its lakes are small, but exceedingly numerous ; and several of them

are admired for their beautiful scenery. The coast, which extends more than 4000 miles, is indented by innumerable creeks and bays. Of the islands, Zealand, Funen, Laaland, and Falster are fertile and pleasant. The climate of Denmark is humid, but temperate for such a latitude. Its winters are rarely so severe that the seas are covered with ice.

In Jutland, the country presents the dreary aspect of moors and brushwood, with wastes of red sand almost destitute of vegetation. On the coasts, the aspect is more cheering. The eastern coast is varied by a number of fertile tracts; and on the west are to be seen rich pastures of the most beautiful verdure.

The productions of the soil are chiefly rye, oats, barley, beans, pease, and potatoes; wheat is but partially cultivated; madder and tobacco are raised on the richer soils; minerals are scarce.

The fisheries in the bays and creeks are valuable, and furnish the chief occupation of the inhabitants of the coasts. The Danes are good farmers, and agriculture may be said to be their principal employment. Their manufactures are neither numerous nor important, but their commerce is considerable. Railways have been formed in Zealand, from Copenhagen to Elsinore, and from Copenhagen to Roskilde, thence to Korsør; in Funen, from Nyborg to Middelfart; and in Jutland, from Aarhus to Randers and Viborg.

Previous to the year 1660, the Danish monarchy was elective; after the memorable revolution of that year, it became hereditary and absolute. In 1834, King Frederick VI. granted a representative constitution, which was confirmed by King Frederick VII. in 1848, and by his successor, Christian IX., in 1863. The established religion is the Lutheran, but all others are tolerated. The University of Copenhagen is a celebrated seat of learning. Education is carefully provided for, the law requiring that each child between 7 and 14 years of age shall attend some public school.

The nobility in Denmark are few, and the titles are confined to those of Earl and Baron; but there are many ancient families of distinction. The people are fond of show, and inclined to conviviality. They are courteous, humane, and courageous—their seamen in particular being distinguished for bravery. In literature, Denmark boasts of several names of great celebrity; among others, Saxo Grammaticus, Snorro, Tycho Brahe, Torfæus, Oehlenschlaeger, and Hans Christian Ander-

sen. Thorwaldsen, a native of Iceland, one of the most eminent sculptors of modern times, received his early education at Copenhagen.

## EXERCISES.

How is Denmark bounded? What is its extent in square miles? What is its population? What are the divisions of Denmark? Name the chief towns. Where are Odensee, Copenhagen, Elsinore, Nakskov, Randers, Rudkiobing, Aarhus, Ronne, Aalborg? etc. Name the islands.

Where are the Little Belt, the Sound, the Great Belt, Lym Fiord? Name the capes of Denmark? What islands are subject to Denmark? What are its colonies?

Of what does Denmark consist? Between what degrees of latitude and longitude is it situated? What are its length and breadth? What is the general appearance of Denmark? Has it any rivers or lakes of importance? What is remarkable about the coast? What kind of islands are Zealand and Funen? Describe the climate of Denmark? What kind of country is Jutland? What is the aspect of the coast? What are the productions of the soil of Denmark? Are minerals abundant? What is the principal occupation of the Danes? Are their manufactures numerous or important? Is their commerce considerable? Have they any railways?

What is the nature of the Danish government? What is the established religion? Are other religions tolerated? How is education provided for? Is there anything peculiar in the manners and customs of the Danes? What is their national character? Of what distinguished names in literature, science, and art, can they boast?

## DESCRIPTIVE TABLE.

**AALBORG**, the capital of Jutland, on the S. shore of the Lym Fiord, with a good harbour. Pop. 10,069.—57° 2' N. lat. 9° 55' E. long.

**Aarhus**, a seaport on the E. coast of Jutland, near the N. extremity of the Great Belt, with a good trade. Pop. 11,009.—56, 9 N. 10, 13 E.

**Aeroeskiobing**, the chief town in the island of Aeroe, on its N. E. side. Pop. 1600.

**A'mak**, a small island in the Baltic, opposite Copenhagen, with which it is connected by two bridges. It is laid out in gardens and pastures. Pop. 6500.

**Anholt**, an island in the Cattegat, with a lighthouse 122 feet high. Pop. 200.

**BELT**, Great, a strait between the islands of Zealand and Funen, about 12 miles broad, and of dangerous navigation.

**Belt**, Little, a strait between Funen

and the peninsula, varying from 1 to 10 miles in width, and hazardous to navigators.

**Bornholm**, an island in the Baltic, about 20 miles in length and 15 in breadth, containing about 100 villages. It is rich in corn and cattle, and has a valuable salmon-fishery. Pop. 81,616.—55, 17 N. 14, 45 E.

**CATTEGAT**, a large channel or sound separating the Danish peninsula from Sweden.

**Col'ding**, a town in Jutland, situated at the head of a bay in the Little Belt.—55, 30 N. 9, 28 E.

**COPENHAGEN**, the capital of the kingdom, the seat of a university, and one of the finest cities in the N. of Europe, stands on the E. coast of the island of Zealand. It has an excellent harbour and docks, and is surrounded by a chain of bastions and a broad ditch,—the walls enclosing a circuit of five miles. The



royal library and museum are particularly rich in northern literature and antiquities. There is a railway from Copenhagen to Elsinore, and also one to Roskilde and Korsør. Pop. 155,143.—55, 41 N. 12, 34 E.

**EL(SIN)ORE'** or **Elsineur'**, a seaport in Zealand, 23 miles N. of Copenhagen, on the narrowest part of the Sound. The castle of Cronborg commands the passage of the Sound, which is about 3 miles broad. Pop. 8442.—56, 2 N. 12, 36 E.

**FAA'BORG**, a seaport town on the S. coast of the island of Funen. Pop. 3120.

**Fal'ster**, a fertile and pleasant island in the Baltic, so productive, especially of fruit, as to be styled the orchard of Denmark. Pop., with Laaland, 91,645.—54, 50 N. 12, 0 E.

**Fan'oe**, an island on the S. W. coast of Jutland. Pop. 2800.

**Fa'roe Islands**, a group in the North Sea, between Shetland and Iceland. They are 22 in number, 17 being inhabited. Thorshaven in Stromoe is the principal town. In general they are naked rocks, and the chief wealth of the inhabitants arises from fishing, rearing of sheep, and the feathers of birds. Pop. 8922.

**Fredericia**, a seaport and fortress in Jutland, at the N. entrance of the Little Belt. Pop. 4600.

**Fredericks'borg**, a small town in the northern part of the island of Zealand, about 21 miles N. N. W. of Copenhagen.

**Fredericks'havn**, the most northerly seaport town in the province of Jutland, on the Cattegat. It has a lighthouse and citadel. Pop. 1400.—57, 26 N. 10, 3 E.

**Fredericks'vark**, a market town in the island of Zealand, at the northern end of the Roskilde Fiord, with a royal residence, copper works, and cannon foundry. Pop. 500.

**Fu'nen**, a large and fertile island, separated from the peninsula by the Little Belt, and from Zealand by the Great Belt. It is 49 miles long and 33 broad. Pop. 188,000.—55, 20 N. 12, 20 E.

**HELIGOLAND'** a small island about 26 miles from the mouths of the Eyder and the Elbe, now belonging to Britain. Pop. 2230.—54, 10 N. 7, 53 E.

**Hiorring** (**He-or'-ring**), a town in the north of the province of Jutland, 21 miles N. of Aalborg. Pop. 2307.

**Horn, The**, a cape on the S. W. coast of Jutland.—55, 34 N. 8, 5 E.

**Horsens**, a seaport in Jutland, on the E. coast. Pop. 8980.—55, 52 N. 9, 50 E.

**ICE'LAND**, a large island in the Atlantic Ocean, between 63° and 67° N. lat., and 18° and 25° W. long. Its length is 300 miles, and its breadth 200. Its surface is rugged and mountainous, its soil barren, and its climate severe. Volcanic eruptions are frequent in many parts of the island. Of Mount Hecla, twenty-four eruptions are recorded, the last of which took place in April 1846. Springs of hot water are numerous, of all degrees of temperature, up to a state of violent ebullition. The most remarkable of these springs, called the Great Geyser, throws up columns of boiling water, to the height of 90, 100, and sometimes even to above 150 feet, accompanied with a noise like the explosion of cannon. The island is very thinly peopled, having a superficial area estimated at 40,000 square miles, with a population of 66,987. The people were formerly noted for literature; they are still very intelligent and of simple manners. **Reikiavik**, the capital, is on the S. W. coast. Pop. 1400.

**Ise Fiord**, an inlet on the N. side of the island of Zealand, 20 miles long and 10 miles broad.

**JUT'LAND**, a large province of Denmark, which formerly comprised the whole peninsula; but the name is now confined to the northern division, extending from 55° 25' to 57° 43' N. lat., in length 160 miles, with an average breadth of 70. P. 755,996.

**KI'OGÉ Bay**, an inlet of the Baltic on the E. coast of Zealand.

**LAA'LAND**, an island at the entrance of the Baltic, 40 miles long and 14 broad. It is the most fertile tract in the Danish dominions. Pop., with Falster, 91,645.—54, 48 N. 11, 25 E.

**Lan'gøland**, an island between Zealand, Laaland, and Funen, 35 miles long and from 3 to 5 broad. Pop. 17,100.—54, 56 N. 10, 46 E.

**Les'soe** or **La'soe**, an island in the Cattegat, E. of the N. part of Jutland. The male inhabitants are chiefly employed in fishing, and the females in agricultural pursuits. Pop. 2400.

**Lym Fiord**, a long narrow gulf in Jutland, which runs westward from

the Cattegat across the peninsula almost to the German Ocean.

**MAR'IBOE**, a town near the centre of the island of Laaland. Pop. 1992.

**Mid'delfart**, a seaport town in the N. W. of the island of Funen, on the Little Belt. Pop. 2123.

**Mo'en**, a small island in the Baltic to the E. of Zealand. Pop. 15,000.

**NAK'SKOV**, a seaport in the island of Laaland, on a bay on its W. coast; it has a good trade in corn. Pop. 3687.

**Ny'borg**, a seaport on the E. coast of Funen, with a strong citadel and shipbuilding docks. Pop. 3802.—55, 19 N. 10, 46 E.

**Ny'kiobing**, a seaport in the island of Falster, on the Guldberg Sound. Pop. 3242.

**ODENSEE'**, the capital of Funen, situated on a river, about a mile from the sea. It has considerable manufactures of woollen cloths, leather, and soap. It is the residence of a bishop, and of the chief magistrate of Funen. Pop. 14,255.—55, 25 N. 10, 22 E.

**PRÆ'STO Bay**, an inlet of the Baltic on the south-east coast of Zealand.

**RAN'DERS**, a town in Jutland, with a considerable trade in corn. Pop. 9725.

**Ring'kiobing**, a seaport in Jutland, on the W. coast, with manufactures of leather, lackered ware, and tobacco. Pop. 1380.

**Ronne**, a seaport on the W. coast of the island of Bornholm, of which it is the capital. Shipbuilding and manufactures of woollen cloth and tobacco are carried on here. Pop. 5435.

**Ros'kilde**, in Zealand, the ancient capital of Denmark, now remarkable only for its Gothic cathedral, in which the kings of Denmark are buried. Pop. 4338.—55, 36 N. 12, 0 E.

**Rud'kiobing**, the chief town of the

island of Langeland, on its W. coast. Pop. 2719.

**SAM'SO**, an island in the Great Belt, between Zealand and Jutland. Area 40 square miles. Pop. 5360.

**Ska'ger Rack**, a large sound, in the North Sea, separating Jutland from Norway.

**Skan'derborg**, a town in the province of Jutland, on the peninsula between Lakes Skanderborg and Henning.

**Skaw or Ska'ger Cape**, a promontory on the northern extremity of Jutland, with a lighthouse.—57, 43 N. 10, 42 E.

**Sound**, a strait between Sweden and the island of Zealand, being about 3 miles across from Elsinore to Helsingborg in Sweden. See Elsinore, p. 90.

**Stege**, the principal town in the island of Moen, on its W. coast. Pop. 1932.

**Svend'borg**, a town on the S. coast of the island of Funen, with shipbuilding docks and a good export trade. Pop. 5537.

**TAN'NIS Bay**, an inlet of the Skager Rack, on the N. coast of Jutland.

**This'ted**, a seaport town in the province of Jutland, on Thisted Bay, an arm of Lym Fiord. Pop. 3126.

**VEILE**, a town of Jutland, at the head of the Veile Fiord, 13 miles north-west of Fredericia. Pop. 4920.

**Vi'borg**, an ancient town, on a small lake, nearly in the centre of Jutland. Pop. 4861.—56, 27 N. 9, 23 E.

**ZEALAND**, an island between the Cattegat and the Baltic. It is about 170 miles in circumference, with an area of 2800 square miles, and about 574,811 inhabitants. Its aspect is finely varied with gentle eminences and cultivated fields; its soil is fertile, and its numerous bays and creeks abound with fish. Here are concentrated most of the manufactures and trade of Denmark.

## HOLLAND OR THE NETHERLANDS

Is bounded N. and W. by the North Sea; S. by Belgium; E. by Rhenish Prussia and Hanover. It contains, with Luxemburg, 12,791 square miles. Its population is 3,592,416.

Provinces.	Chief Towns.
Groningen.....	Groningen, Winschoten, Delfzyl.
Drenthe .....	Assen, Meppel.
Friesland .....	Leuwarden, Harlingen.
Overijssel.....	Zwoll, Deventer.
Guelderland.....	Arnheim, Nimeguen, Zutphen.
Utrecht .....	Utrecht, Amersfoort.
North Holland.....	{ AMSTERDAM, Haarlem, Alkmaar, Leyden, The Hague, Rotterdam, Hoorn, Dort, Delft.
South Holland.....	
Zealand .....	Middleburg, Flushing, Veere.
North Brabant.....	Bois-le-Duc, Breda, Bergen-op-Zoom.
Part of {	Limburg.....Maestricht.
	Luxemburg.....Luxemburg.

Luxemburg, of which the King of the Netherlands is the Grand Duke, does not form an integral part of the kingdom, but has a constitution and legislature of its own.

**ISLANDS.**—Walcheren, North Beveland, South Beveland, Tholen, Schouwen, in the province of Zeeland; Over Flakkee, Voorne, Ysselmonde; Texel, Vlieland, Schelling, Ameland.

**SEAS AND BAYS.**—Zuyder Zee, Lauwer Zee, Dollart Bay.

**RIVERS.**—The Rhine, with its branches the Waal, Yssel, and Leck; the Maas or Meuse; the Vecht.

**FOREIGN POSSESSIONS.**—In the East Indies, Java, and the Moluccas or Spice Islands, with settlements in Sumatra and Borneo; in the West Indies, Curaçoa, Buen Ayre, St Eustatius, Saba, etc.; in S. America, Surinam; in Africa, El Mina, and several forts on the coast of Guinea.

### REMARKS.

Holland, exclusive of Limburg and Luxemburg, is situated between 51° 15' and 53° 30' N. lat. and between 3° 20' and 7° 12' E. long. Its length, from the north of Friesland to the south of North Brabant, is about 150 miles, its breadth about 110 miles.

To the lover of the picturesque, the aspect of Holland is tame. The country is one vast plain, and when viewed from the

top of a tower or spire, it appears like an extensive marsh, intersected by numberless ditches and canals. Yet even the dull monotony of this prospect is relieved by features of interest;—meadows of wide extent and of beautiful verdure, covered with large herds of well fed cattle; sheets of water, clusters of trees, and, in the vicinity of large towns, elegant villas surrounded with gardens and parks, decorated with statues and busts.

No country can display more striking proofs than Holland of the energies which man can exert in overcoming the physical evils or difficulties of his situation. Placed below the level of the sea at high water, many tracts have been exposed to destructive inundations. The Zuyder Zee now occupies the bed of an ancient lake, and of a district through which a river, issuing from the lake, pursued a course of fifty miles to the sea. The islands that skirt the north-western shores are the evident remains of an old tract of mainland, over which the sea has established its dominion. In the tenth century, the mouths of the Schelde spread into broad estuaries, leaving the islands of Beveland, Walcheren, and Schouwen, as vestiges of the country which they overwhelmed; and in the fifteenth century (A. D. 1446), the salt lake near Dort was formed by a sudden inundation, which destroyed 72 villages, and more than 20,000 persons. To protect themselves from the recurrence of such calamities, the Dutch constructed along their coast stupendous dikes, or mounds of earth, faced with stone or wood, which have effectually repelled the encroachments of the sea. These mounds slope on each side, and are in some places so broad as to admit of two carriages abreast. Similar dikes are built along the banks of the great rivers, with sluices at intervals, by means of which the country can be laid under water on the approach of an enemy.

Inland communication was long chiefly carried on by canals which traverse the kingdom in every direction. Railways are now open, connecting Rotterdam, the Hague, Leyden, Haarlem, Amsterdam, Utrecht, and Arnheim, and communicating with the Prussian frontier.

The soil near the coasts is chiefly sand mixed with turf; it is cultivated with the utmost care. In other parts it is a deep loam. Owing to the humidity of the climate, a great part of the land is kept in grass; and the pastures are of unrivalled luxuriance. The principal crops are wheat, madder, tobacco, flax, and hemp. But the rural wealth of Holland consists chiefly of its cattle and the produce of the dairy. Horticulture,

especially the raising of flowers, has been brought to great perfection.

In manufactures the same spirit of industry is displayed as in husbandry. Linens, leather, the distillation of gin, and that species of pottery called Delft ware, may be particularly mentioned.

But it is chiefly to commerce that Holland has been indebted for the remarkable prosperity which she has long enjoyed. After her emancipation from Spanish rule, she became distinguished by the energy and success in trade which are the natural fruits of independence. For centuries almost the whole carrying-trade of Europe was in her hands; her fisheries were most extensive and valuable; and her colonies in the East Indies were the sources of an active and lucrative traffic. Successive wars checked her manufactures and commerce; and the despotism of Napoleon Bonaparte brought them to the verge of ruin. On his overthrow in 1814, Holland was restored to independence, and placed in a fair way of recovering her commercial prosperity. After the Dutch had thrown off the yoke of Philip II. of Spain, in 1579, the provinces of Holland, called the Seven United Provinces, became so many federal republics, the chief magistrate being named the Stadtholder (the Protector of the State). Holland was overpowered by the revolutionary armies of France in 1795, and erected into a commonwealth called the Batavian Republic. Napoleon I., in 1806, changed it into a kingdom, with his brother Louis as king; but in 1810 declared it an integral part of France. It so remained until the fall of Napoleon I., when Belgium and the provinces of Holland were united into the kingdom of the Netherlands, with a constitutional government. But this union was never popular in Belgium; and the revolution by which Charles X. was expelled from France in July 1830, was followed in August by a revolt in Brussels, the issue of which was the separation of the Netherlands into two kingdoms, Holland retaining the province of North Brabant, a part of the grand-duchy of Luxemburg, and of the duchy of Limburg, with the colonies in Asia, Africa, and America. The advantages of education are enjoyed throughout Holland in an eminent degree. Schools are established in every parish. The universities of Leyden, Utrecht, and Groningen have long been celebrated. The Dutch have distinguished themselves in letters, in science, and in the fine arts. They can boast of the names of Erasmus, Grotius, Boerhaave, Rembrandt, Vossius, Huyghens, Heyne, and many others.

The Dutch are a laborious, plodding, frugal, upright people. In religion the majority are Protestants; but they have long set the example of complete toleration.

## EXERCISES.

How is Holland bounded? What is its extent in square miles? What is the amount of the population? What are the divisions of Holland? What are the principal towns in Zealand, Holland Proper, Utrecht? etc. Where is Rotterdam, Arnheim, Breil, Amsterdam, Breda, Nimeguen, Bergen-op-Zoom, Deventer, Zutphen? etc. What are the principal rivers? Name the seas and bays. Name the islands. Where is the Zuyder Zee? What are the branches of the Rhine in Holland? Where is Schelling, Dollart Bay, Walcheren, Ameland, South Beveland, Lauwer Zee, Vlieland? etc. What are the Dutch colonies in the East Indies, in the West Indies, in South America, and in Africa?

Between what degrees of latitude and longitude is Holland situated? What are its length and breadth? What is its general aspect? By what is the dull uniformity of the prospect relieved? From what cause have many parts of this country been exposed to terrible inundations? What tract is now occupied by the Zuyder Zee? Of what are the islands on the northern shores the evident remains? In what century did the mouths of the Schelde expand into broad estuaries? How and when was the salt lake near Dort formed? What devastation did that inundation commit? By what means did the Dutch protect themselves from the recurrence of such dreadful calamities? What security do the embankments afford against the invasion of a foreign enemy? What is the principal inland communication? What cities are connected by railways? Why is a great part of Holland kept in grass? What crops are chiefly cultivated? In what does the principal rural wealth of Holland consist?

What are the chief manufactures of Holland? When did Holland become distinguished by its energy and success in trade? What were the chief branches of its commerce? By what was it brought to the verge of ruin? How was it placed in a fair way of recovering its commercial prosperity?

What was the nature of the Dutch government after the country had thrown off the Spanish yoke? What changes were caused by the French Revolution in 1795? When was Holland united to Belgium? How and when were they separated?

In what state is education in this country? Are schools common? What universities have long been celebrated? Of what great names in literature, science, and art, can Holland boast? What is the Dutch character? What is the religion of the majority of the people?

## DESCRIPTIVE TABLE.

**ALKMAAR'**, a fortified town in Holland Proper, situated on the Helder Canal. It has a great trade in butter and cheese. Pop. 11,500.—52° 24' N. lat. 4° 45' E. long.

**Ameland**, an island to the N. of Friesland. Pop. 3000.

**A'mersfoort**, a pleasant town in the province of Utrecht, with considerable manufactures. Pop. 13,248.—52, 9 N. 5, 22 E.

**AMSTERDAM'**, the capital of the kingdom, a great commercial city, situated at the confluence of the

Amstel with the Y (pron. *Eye*), an arm of the Zuyder Zee. It is built in a marsh, upon piles, and has a harbour capable of containing 1000 vessels. The streets are spacious, and the city is intersected by numerous canals, spanned by 290 bridges, and ornamented with fine trees. P. 267,627.—52, 22 N. 4, 53 E.

Arnheim', the chief town of Guelderland, on the Rhine. Pop. 30,896.—51, 59 N. 5, 54 E.

Ass'en, the chief town in the province of Drenthe. Pop. 5000.—53, 0 N. 6, 83 E.

Ar'el, a small but strongly fortified town in Zeeland. Pop. 2250.

BER'GEN-OP-ZOOM', an important town and fortress in N. Brabant, communicating with the East Schelde by a canal. In 1814, it was attacked unsuccessfully by a British army, under Sir Thomas Graham, afterwards Lord Lynedoch. Pop. 8818.—51, 29 N. 4, 17 E.

Beve'land, North, an island in the province of Zeeland, about 13 miles long and 8 broad. By a terrible inundation, in 1532, it was so completely overwhelmed, that for many years nothing but the tops of spires were to be seen.

Beve'land, South, an island in Zeeland, separated from North Beveland by the island of Wolfersdyk. It is 24 miles long and from 5 to 8 broad, and is the largest and most agreeable of all the Zeeland Isles.

Bois-le-Duc (Bo'aw-le-Deuk'), a strongly fortified town, the capital of N. Brabant, at the confluence of the Dommel and the Aa. P. 24,579.—51, 41 N. 5, 18 E.

Brabant', North, formerly called Dutch Brabant, a province to the S. of Guelderland. Although a great part of it is covered with moss, heath, and wood, it is very productive in corn, hops, and flax. It contains 1942 square miles. Pop. 431,253.

Bre'da, a town in North Brabant, on the Merk, near its junction with the Aa. It is considered one of the strongest places in Holland. Pop. 15,210.—51, 35 N. 4, 46 E.

Briel or Brielle, a town on the N. coast of the island Voorne, having a large and commodious harbour. Pop. 4504.—51, 54 N. 4, 10 E.

CAMPERDOWN', a village on the coast of N. Holland, off which the British fleet under Admiral Duu-

can defeated De Winter, in 1797.—52, 43 N. 4, 39 E.

DELFT, a town in Holland Proper, between Rotterdam and Leyden, formerly noted for its manufacture of earthenware, and celebrated as the birthplace of Grotius. Pop. 22,049.

Delf'zyl, a strong seaport in Groningen, on Dollart Bay. Pop. 3874.

Deven'ter, a town in Overijssel, situated on the right bank of the Yssel. Pop. 17,846.—52, 15 N. 6, 9 E.

Dol'lart Bay, a large arm of the North Sea, to the E. of Groningen, at the mouth of the river Ems. It is said to have been formed by an irruption of the sea, towards the close of the 13th century.

Dom'mel, a river of N. Brabant, which receives the Aa at Bois-le-Duc, below which it falls into the Maas.

Dort or Dor'drecht, an ancient city in Holland Proper. It was the residence of the ancient counts of Holland, and the birthplace of the famous brothers De Witt. Here was held, in 1618-19 the celebrated Synod of Dort, by which the tenets of Arminius were condemned. P. 24,420.—51, 49 N. 4, 40 E.

Drenthe (Drent), a province to the S. of Groningen. Extent 955 square miles. Pop. 106,532.

E'DAM, a town on the Zuyder Zee, with a great trade in cheese. Pop. 4024.

FLUSH'ING, or Vlissingen, a strong seaport in the island of Walcheren, at the mouth of the Schelde. Within the town are two basins, one of which is large enough to contain 80 line-of-battle ships. Pop. 11,000.—51, 26 N. 3, 35 E.

Fries'land, a province in the N. of Holland, having the Zuyder Zee on the W. and the German Ocean on the N. It contains 1027 square miles and 295,946 inhabitants.

GOES, a strong town in the island of S. Beveland. Pop. 5425.

Gor'cum, a town of Holland Proper, on the Waal, near its junction with the Maas. Pop. 9000.—51, 50 N. 4, 57 E.

Gou'da, a town of Holland Proper, on the Yssel, noted for its cheese and manufacture of tobacco-pipes. Pop. 15,524.—52, 2 N. 4, 43 E.

Gro'nigen, a province in the north-eastern extremity of the kingdom, containing 882 square miles, and a population of 229,018. It is protected by dikes against the sea, and inter-

sected by numerous ditches and canals for carrying off the water. Its pastures are extremely rich.

Gro'nigen, the capital of the province of the same name, is a handsome city, situated at the junction of three great canals. It possesses considerable trade, and is the seat of an ancient university. The church of St Martin is a noble Gothic edifice, with a tower 330 feet high. Pop. 37,292.—53, 13 N. 6, 34 E.

Guel'derland, a province to the S. E. of the Zuyder Zee, and separated from N. Brabant by the Maas, contains 1962 square miles, and a population of 434,093. It is watered by the Rhine, the Waal, the Yssel, and the Leck.

HAAR'LEM, a flourishing town in Holland Proper, on the river Spaaren, communicating by canals and by railway with Leyden and Amsterdam. In its principal church is an organ, considered one of the finest in the world, containing nearly 5000 pipes, the largest 32 feet long and 15 inches in diameter. Pop. 30,755.—52, 22 N. 4, 38 E.

Haar'lem Meer, formerly a lake between Amsterdam, Leyden, and Haarlem, communicating with the Zuyder Zee. In 1851 drained, and converted into arable land.

Hague (Fr. La Haye), a handsome city in Holland Proper, and the seat of the court, 37 miles S. W. from Amsterdam. About a mile to the N. is the rural palace of the royal family, surrounded by stately oaks and beautiful gardens. It has a fine gallery of pictures. Here King William III. of Great Britain was born. Pop. 89,068.—52, 4 N. 4, 18 E.

Har'lingen, a seaport of Friesland, on the Zuyder Zee. Pop. 9913.—53, 10 N. 5, 26 E.

Hel'der, a town in Holland Proper, with a strong fortress, which commands the entrance of the Zuyder Zee. Pop. 18,332.—52, 57 N. 4, 44 E.

Hel'voetsluis, a fortified town on the S. side of the island Voorne, in Holland Proper, having an excellent harbour and extensive dockyards. Pop. 2000.—51, 49 N. 4, 8 E.

Holland Proper, a province N. of Zealand, remarkable for the density of its population, the number of its towns and villages, and the triumphs of persevering industry over the difficulties of its natural position. Its

superficial extent is 2125 square miles. It is divided into North Holland, pop. 578,915; and South Holland, pop. 681,321.

Hoorn, a seaport on a bay of the Zuyder Zee, with considerable trade and manufactures. Pop. 10,000.—52, 38 N. 5, 3 E.

Kampen', a fortified town in Over-yssel, on the Yssel. Pop. 15,589.

LAU'WERZEE, an arm of the sea on the N. of Groningen.

Leck, a river which branches off from the Rhine in Utrecht, and joins the Maas above Rotterdam.

Leuwar'den, the chief town of Friesland, on the Ee. It is intersected by canals, the banks of which are shaded with trees, so as to form delightful promenades. Pop. 25,118.—53, 12 N. 5, 47 E.

Ley'den, one of the principal cities of the kingdom, on a branch of the Rhine, in Holland Proper. It is intersected by a number of canals, forming upwards of 50 small islands, which are connected by more than 140 bridges. The principal street, in which is situated the Stadthouse, is one of the finest in Europe. Leyden is the seat of a celebrated university, and has produced many eminent men; the library contains a rich collection of oriental manuscripts. Pop. 38,605.—52, 9 N. 4, 29 E.

Lim'burg, a province of the Netherlands, consisting mostly of an extensive and well-cultivated plain, on both sides of the Maas. At the separation of Holland from Belgium, in 1831, the part E. of that river, including the city of Maestricht, with an extent of 885 square miles, and a population of 225,326, was assigned to Holland.

Lux'emburg, a large province to the S. of Liege. It is a grand-duchy, and by the treaty which ratified the disjunction of Belgium from Holland in 1831, a portion of Luxemburg, containing 990 square miles, and 203,851 inhabitants, was attached to Holland. The treaty of London, May 1867, declared this a neutral territory.

Lux'emburg, the capital of the province of the same name, was one of the strongest fortresses in Europe. Here are many interesting remains of Roman antiquity. Pop. 12,170.—49, 37 N. 6, 9 E.

MAAS or Meuse, a large river which rises in the S. of Champagne, in France, and flows through Namur,



Liege, and Limburg. After forming the N. boundary of North Brabant, and being joined by the Waal, it falls into the German Ocean below Rotterdam.

Mae'stricht, a flourishing town in the duchy of Limburg, situated on the Maas, near its confluence with the Jaar. It is strongly fortified, and its ramparts form agreeable promenades. Pop. 28,557.—50, 51 N. 5, 41 E.

Mep'pel, a town in Drenthe, the largest in the province, on a tributary of the Vecht. Pop. 7000.

Mid'dleburg, the principal town of the province of Zealand, situated near the centre of the island of Walcheren. It is a place of great antiquity, and of considerable trade. Pop. 16,180.—51, 30 N. 3, 37 E.

NIM'EGUEN, a strong town in Guelderland, on the left bank of the Waal. Pop. 22,712.—51, 50 N. 5, 52 E.

OVERFLAK'KEE, an island at the entrance of the Maas into the German Ocean.

Overys'sel, a province in the E. of Holland, containing 1240 square miles, and 256,449 inhabitants.

RHINE. See GERMANY.

Rotterdam', a seaport of Holland, and a city of the first commercial importance, situated on the Maas. Although 20 miles from the German Ocean, it has great facilities for trade, the streets being intersected by canals deep enough to receive large vessels. This was the birth-place of Erasmus, to whose memory his fellow-citizens have erected a bronze statue. Pop. 117,104.—51, 55 N. 4, 29 E.

Rure'monde, a strong town in the province of Limburg, at the confluence of the Roer and the Maas, with cloth manufactures. Pop. 9246.

SCHEL'LING, an island about 9 miles from the coast of Friesland. It is 14 miles long and 3 broad. Pop. 2500.

Schiedam', a town of Holland Proper, famous for its manufacture of gin or Hollands. Pop. 16,820.—51, 55 N. 4, 20 E.

Schou'wen', an island at the mouth of the Schelde, 15 miles long and 5 broad.

Sluys or l'Ecluse', a fortified town of Zealand, near the mouth of the Schelde. Pop. 9750.

TEX'EL, an island at the entrance

of the Zuyder Zee, separated from the continent by the narrow channel of Mars-diep. It is about 12 miles long and 6 broad. Near this island Admiral Blake defeated the Dutch fleet under Van Tromp in 1653. Pop. 4924.—53, 5 N. 4, 40 E.

Tho'len, a fertile and well-cultivated island at the mouth of the Schelde, about 12 miles long and 6 broad. Pop. 2500.—51, 30 N. 4, 8 E.

Til'burg, a town in N. Brabant, with considerable manufactures. P. 19,806.

U'TRECHT, a province to the E. of Holland Proper, and S. of the Zuyder Zee. Its superficial extent is 532 square miles, and its population 174,562.

U'trecht, the *Ultra-Trajectum* of the Romans, is the capital of the province of Utrecht, and the seat of a celebrated university. Here were concluded two memorable treaties,—the one in 1579, uniting the Seven Provinces against the Spaniards,—the other in 1713, terminating the war of the Spanish Succession. Pop. 59,763.—52, 6 N. 5, 8 E.

VECHT, a river which rises in Westphalia, and, after uniting with several streams, falls into the Zuyder Zee.

Veere', a town in the N. E. of the island of Walcheren. Pop. 1100.

Venloo', a strong town in the province of Limburg, on the Maas, with considerable trade and manufactures. Pop. 6916.

Vlie'land, a small island at the mouth of the Zuyder Zee, 8 miles in length and 3 in breadth. Pop. 620.—53, 17 N. 5, 8 E.

Voorne, an island formed by two mouths of the Maas, about 15 miles in length and 5 in breadth.

WAAL, a large branch of the Rhine, flowing westward, and joining the Maas near Gorcum.

Walcheren (Wal'sheren), the most populous and best cultivated of the islands that compose the province of Zealand. It is 12 miles in length and 8 in breadth. Besides the towns of Middleburg, Flushing, and Veere, it contains a number of villages. Pop. 40,000.

Wins'choten, a small town in Groningen, to the E. of the capital. Pop. 3906.

YS'SEL, a branch of the Rhine, passes Zutphen and Deventer, and falls into the Zuyder Zee.

Y'schmonde, a small island in Holland Proper, formed by the Maas, the Merwe, and the Yssel.

ZAANDAM or Saardam, a town of N. Holland on the Y, on arm of the Zuyder Zee, with an extensive trade in timber. Here Peter the Great of Russia worked as a common shipwright. Pop. 12,330.

Zeland, a province composed chiefly of islands, viz. Schouwen, Duiveland, Tholen, Walcheren, N. and S. Beveland, Wolkenlyk, and a strip of land on the continent along the bank of the W. Schelde. Its area is 680 square miles, and its population 173,401.

Zierikzee, a strong town in Zee-

land, capital of the Isle of Schouwen. Pop. 7106.

Zutphen, a strong town in Guelderland, on the Yssel. Here the gallant and accomplished Sir Philip Sydney fell, in 1588. Pop. 15,113.

Zuyder Zee, a large gulf of the German Ocean, about 80 miles long from N. to S., and from 15 to 30 broad. It was formed in 1225 by an irruption of the ocean; formerly it was a great inland lake called by the ancients *Flevo*.

Zwoll, the chief town of Overijssel, situated between the Yssel and the Vecht. Here Thomas-a-Kemp died in 1471. Pop. 20,572.

## BELGIUM

Is bounded N. by Holland; W. by the North Sea; S. by France; E. by Rhenish Prussia. It contains 11,350 square miles. Its population is 4,839,094.

### Provinces.

### Chief Towns.

Antwerp.....	Antwerp, Mechlin.
East Flanders.....	Ghent, Oudenarde, Dendermonde, St Nicholas.
West Flanders.....	Bruges, Ostend, Courtray, Ypres, Nieuport.
Hainault.....	Mons, Tournay, Charleroi.
Brabant.....	BRUSSELS, Louvain, Tirlemont, Waterloo.
Namur.....	Namur.
Liege.....	Liege, Verviers.
Part of { Limburg.....	Hasselt, Tongres, St Tron.
{ Luxembourg.....	Arion, Bastogne, Bouillon.

**RIVERS.**—The Schelde, with its tributaries the Lys, the Haine, the Dender, and the Dyle; the Maas or Meuse, with its tributary the Sambre.

### REMARKS.

Belgium lies between 49° 30' and 51° 30' N. lat., and between 2° 30' and 6° 5' E. long. Its length from east to west is about 140 miles, and its breadth from north to south about 100 miles.

Belgium presents a pleasing variety of gentle eminences, undulating plains, meadows, and rich corn-fields. The ancient forest of Ardennes stretches into the provinces of Namur, Luxembourg, and Liege, rendering the districts along the Maas highly picturesque. Great coal and iron fields traverse these provinces with that of Hainault, where also lead, and paving, and build-

ing stones abound. The soil is either naturally fertile or has been improved by assiduous cultivation, and yields the most luxuriant crops. All kinds of grain and fruits are raised. The climate resembles that of the southern counties of England. The whole country is studded with towns and villages of manufacturing activity, with a population of 440 persons to the square mile, forming the most densely inhabited district of Europe.

The Belgians are distinguished for fine manufactures, particularly of lace, lawns, and cambrics, and for good broadcloth. Cutlery and iron works are carried on to a great extent at Namur and Liege. From the twelfth to the sixteenth century, Belgium was the most commercial country in Europe; but it was afterwards surpassed by Holland. Now that war has given place to the arts of peace, the trade and manufactures of Belgium are rapidly improving; new roads are formed, canals connect all the great towns of the kingdom, and it is intersected in every direction by railways constructed at the expense of the Government. The Flemings in the north resemble in character their Dutch neighbours, but towards the south they have adopted the dress and manners of the French. The great majority of the people are zealous Roman-catholics, but salaries are granted from the public funds to the Protestant clergy. There are universities at Ghent, Liege, Louvain, and Brussels. Belgium produced at one period a race of very eminent artists, Rubens, Vandyck, Teniers, and others, who formed what is called the Flemish School of Painting. The Flemish architects were also very distinguished, and several of the cathedrals, particularly that of Antwerp, rank among the finest edifices in Europe.

The government of Belgium is a constitutional monarchy. The legislative power is vested in the king and two chambers, namely, a senate, composed of 58 members, elected by the nation for eight years, and a chamber of representatives, numbering 116, elected by the people for four years.

Belgium, under the Counts of Flanders, was independent and flourishing. It was afterwards added to the domains of the house of Burgundy, and in 1477 to those of Austria. It was overrun by the revolutionary armies of France in 1792, and in 1795 was annexed to that country. At the peace in 1814, it was united with Holland into the kingdom of the Netherlands; but in 1830 it separated itself, and elected as its king Prince Leopold of Saxe-Coburg, whose son Leopold II. now reigns.

## EXERCISES.

How is Belgium bounded? What is its extent in square miles? What population does it contain? What are its divisions? What are the principal towns in West Flanders, East Flanders, Hainault? etc. Where are Dendermonde, Bruges, Brussels, Antwerp, Courtray, Louvain? etc. What are the principal rivers?

Between what degrees of latitude and longitude is Belgium situated? What are its length and breadth? What is its general aspect? Of what nature is its soil? What is the state of cultivation? What are its productions? Which provinces contain the great coal and iron fields? What country does Belgium resemble in climate? For what manufactures is it famous? When was it the most commercial country in Europe? Is its commerce again improving? What is the character of the Flemings? What religion do they profess? What universities have they? What celebrated artists has Belgium produced? To what school of painting have they given rise? Has architecture been carried to any perfection by the Flemings? Mention a cathedral considered to be one of the finest in Europe.

To whom did Belgium formerly belong? When was it annexed to France? When to Holland? Under what monarch is it now a separate kingdom?

## DESCRIPTIVE TABLE.

**ALSTY**, a town in E. Flanders, on the Dender, with considerable manufactures and trade. Pop. 19,177.

**Antwerp** (Fr. Anvers), a northern province, bounded on the west by the Schelde, contains 1122 square miles, with a population of 474,145.

**Antwerp** Fr. Anvers, the capital of the province of Antwerp, and the chief maritime and commercial city of Belgium, is situated on the Schelde: it has noble docks and an arsenal, with a citadel of great strength. Here Vandyck the painter was born in 1590. The paintings of Rubens adorn the cathedral, one of the finest Gothic edifices in Europe, being 500 feet in length by 250 in breadth, with a beautiful spire 306 feet high. Pop. 123,571.—51° 13' N. lat. 4° 24' E. long.

**Arlon**, the capital of the Belgian part of the grand-duchy of Luxembourg. Pop. 5647.

**Ath**, a fortified town of Hainault, on the Dender. Pop. 8132.

**BASTONNE**, a fortified town in Belgian Luxembourg. Pop. 2265.

**Bruin**, a town in the province of Antwerp, on the Rupel. Pop. 7464.

**Buillon**, a town in Belgian Luxembourg, with a strong castle, on the boundary, near the French frontier. Pop. 2548.

**Brabant**, South, an important central province, formerly distinguished from N. Brabant by the name of Austrian Brabant. It contains 1260 square miles. Pop. 820,179.

**Bruges**, the capital of W. Flanders, 13 miles E. from Ostend: it carries on considerable trade, and is intersected by a number of canals. Pop. 47,205.—51. 12 N. 3, 14 E.

**Brussels** (Fr. Bruxelles), the metropolis of Belgium, and the capital of S. Brabant, is situated partly on a plain, and partly on the slope of a hill, at the foot of which flows the river Senne. It is a very handsome city; its public walks, particularly the Green Alley and the Park, being among the finest in Europe. Pop. 296,827.—50. 51 N. 4. 22 E.

**CHARLEROI**, a fortified town of Hainault, on the Sambre, surrounded by coal-mines. Pop. 12,143.

**Courtray** (Courtray), a town in W. Flanders, on the Lys, celebrated for its manufactures of fine linens. Pop. 23,276.—50. 49 N. 3. 16 E.

**DENDER**, a small river which rises in Hainault, and joins the Schelde near Dendermonde.

**Dendermonde** or **Tirmonde**, a fortified town, with a strong castle, in E. Flanders, at the confluence of

the Dender and the Schelde. Pop. 8637.—51, 2 N. 4, 6 E.

Diest, a town in S. Brabant, on the Demer, with manufactures of cloth. Pop. 7720.

Din'ant, a town in the province of Namur, on the Maas, with a strong citadel; near it are marble quarries. Pop. 7130.

Dix'mude, a town in West Flanders. Pop. 3563.

Dyle (Deel), a small but navigable river in S. Brabant; after passing Louvain and Mechlin, it falls into the Schelde above Antwerp.

ECC'LOO, a manufacturing town of E. Flanders. Pop. 9000.

Eng'hien, a town in Hainault. P. 3742.

FLAN'DERS, a very interesting and fertile quarter of Belgium, divided into the provinces of E. and W. Flanders. The extent of E. Flanders is 1232 square miles; its population 801,872. The extent of W. Flanders is 1512 square miles; its population 639,709.

Fleu'rus, a small town in Hainault, near the Sambre, the scene of four battles in the Spanish and French wars. Pop. 2370.

Fontenoy', a village in Hainault, near Tournay, where the allied armies of Britain, Austria, and Holland were defeated by the French under Marshal Saxe in 1745. Pop. 678.

GHENT (Fr. Gand), a manufacturing and commercial city, the capital of E. Flanders, and the seat of a university, is situated on the Schelde, at its junction with the Lys. By these rivers and by navigable canals, it is divided into 26 islands, which communicate by above 80 bridges. It is 10 miles in circuit, great part of it being occupied with gardens, orchards, and fields. The Emperor Charles V. was born at Ghent in 1500. Pop. 116,807.—51, 3 N. 3, 43 E.

Gram'mont, a town in E. Flanders, on the Dender, with a good trade. Pop. 7364.

HAINAULT (Hinolt'), a province stretching along the French frontier. Its superficial extent is 1474 square miles; its population 847,775. This province has, at different periods, been the scene of many of the most celebrated wars in the history of Europe.

Haine, a small river which falls into the Schelde at Condé.

Hamme, a trading town in E. Flanders. Pop. 8462.

Has'selt, the capital of the Belgian part of the province of Limburg, on the Demer. Pop. 9895.

Hers'tal, a town in Liege, on the Maas, with great iron and steel works. Pop. 6032.

Hu'bert, St., a town in Belgian Luxemburg, with a celebrated abbey.

Huy (pr. We), a town in the province of Liege, on the Maas, with extensive iron-works and paper-mills. Pop. 11,054.

Liege', a large province in the S.E. of the kingdom, having a superficial extent of 1144 square miles, and a population of 556,666.

Liege', the capital of the province of Liege, situated on the Maas, in a pleasant valley surrounded with cultivated hills. It is a flourishing town, with a university founded in 1816, and extensive manufactures, particularly in iron-work and clock-work. P. 101,699.—50, 40 N. 5, 31 E.

Lier' or Lierre', a town in the province of Antwerp, at the junction of the two Nethe, with a considerable trade. Pop. 15,074.—51, 8 N. 4, 35 E.

Lim'burg, a province to the N. of Liege, belonging in part to Holland and in part to Belgium. The extent of the Belgian division is 946 square miles. Pop. 199,856.

Lim'burg, a town in the province of Liege. Pop. 1797.

Lok'eren, a flourishing town in E. Flanders, between Ghent and Antwerp; it has a good corn trade and large manufactures. Pop. 16,900.—51, 6 N. 3, 59 E.

Louvain', a large town in S. Brabant, on the Dyle. Its walls are nearly 7 miles in circuit; but the space which they enclose is chiefly occupied by gardens and vineyards. Its long-celebrated university, founded in 1426, and suppressed by the French in 1793, was restored in 1817, and is again a flourishing school. Pop. 32,976.—50, 53 N. 4, 41 E.

Lux'emburg, an extensive province belonging partly to Holland and partly to Belgium. The former retains the capital, but the latter holds the largest portion, containing 1760 square miles and 196,173 inhabitants.

Lys, a river which rises in the N. of France, passes Menin and Courtray, and joins the Schelde at Ghent.

MAAS. See HOLLAND, p. 97.

**Mec'lin** (Fr. *Malin'es*), a city in the province of Antwerp, on the Dyle, with an ancient cathedral; it is noted for its manufactures of fine lace and linens. Pop. 35,529.—51, 1 N. 4, 28 E.

**Men'in**, a fortified town of W. Flanders, on the Lys, with considerable manufactures. Pop. 10,167.

**Mons**, the capital of the province of Hainault, on the small river Trouille, in the neighbourhood of extensive coal-mines. It is strongly fortified, and is one of the principal barrier-towns against France. Pop. 23,121.—50, 26 N. 3, 58 E.

**NAMUR** (Namoor'), a province S. of Brabant, having a superficial extent of 1452 square miles, and a population of 302,719.

**Namur'**, a strongly fortified town, the capital of the above province, at the confluence of the Maas and the Sambre; it has extensive iron-works. Pop. 22,549.—50, 28 N. 4, 51 E.

**Nick'olas, St.**, a handsome town in E. Flanders, with considerable manufactures. Pop. 23,366.—51, 9 N. 4, 8 E.

**Nieu'port**, a fishing and trading town in W. Flanders. Pop. 3393.—51, 8 N. 2, 45 E.

**Nivell'es**, a town in S. Brabant, with manufactures of lace and cambric. Pop. 8830.

**OSTEND'**, a fortified seaport in W. Flanders, from which packets sail to England. It is famous for its obstinate defence against the Spaniards for more than three years, A.D. 1601-1604. Pop. 16,735.—51, 13 N. 2, 55 E.

**Oudenarde'**, a town in E. Flanders, on the Schelde. Here the Duke of Marlborough and Prince Eugene gained a memorable battle over the French in 1708. Pop. 6262.—50, 52 N. 3, 36 E.

**Ourthe**, a river of Belgium, which joins the Maas at Liege.

**POP'ERINGEN**, a manufacturing town in W. Flanders. Pop. 10,865.

**RAM'ILLIES**, a village in S. Brabant, where, in 1706, the Duke of Marlborough gained a signal victory over the French.

**Renaix'**, a town in E. Flanders, near Oudenarde. Pop. 11,844.

**Roulers'**, a town in W. Flanders with considerable trade. P. 13,786.

**SAM'BRE**, a river which rises in the north of France, and falls into the Maas at Namur.

**Schelde**, a river which rises in France near Cambrai, winds through E. Flanders, passing Ghent and Antwerp, and falls into the German Ocean by two mouths—the E. and W. Schelde.

**Seraing'**, a town in Liege, with great iron-works. Pop. 20,084.

**Soig'nies**, a town in Hainault, with a large trade in hewn stone. P. 6776.

**Spa**, a town in the province of Liege, situated amid romantic scenery, long one of the most celebrated watering-places in Europe. Pop. 5173.—50, 30 N. 5, 52 E.

**THIELT**, a flourishing town in W. Flanders. Pop. 10,176.

**Thorout** (Tor'oo), a manufacturing town in W. Flanders. P. 7916.

**Tirle'mont**, a town in S. Brabant, on the Geete, with considerable woollen manufactures. Pop. 12,354.—50, 48 N. 4, 55 E.

**Ton'gres**, a town of Limburg. P. 6180.

**Tournay** (Toor'nay), a fortified town in the province of Hainault, on the Schelde, with large manufactures of carpets and cloths. Pop. 31,525.—50, 36 N. 3, 24 E.

**Tron, St.**, an ancient town in the province of Limburg. Pop. 11,260.

**Turnhout'**, a manufacturing town in the province of Antwerp. Pop. 13,723.—51, 18 N. 4, 56 E.

**VER'VIERS**, a flourishing town in the province of Liege, with considerable manufactures, particularly of woollen cloths. Pop. 33,375.—50, 38 N. 5, 54 E.

**WATERLOO'**, a village 10 miles S. of Brussels, where the most celebrated battle of modern times was gained by the Duke of Wellington over Napoleon I., on the 18th June 1815. Pop. 1900.—50, 43 N. 4, 22 E.

**YPRES** (Ee'pray), a fortified town in W. Flanders, situated on a small river. P. 16,165.—50, 51 N. 2, 53 E.

## FRANCE

Is bounded N. by Belgium and the English Channel; W. by the Atlantic Ocean; S. by the Pyrenees and the Mediterranean; E. by Italy, Switzerland, and Germany. It contains 211,852 square miles. Its population is 38,067,094.

**DIVISIONS.**—France was formerly divided into 35 provinces. At the revolution of 1789 the country was parcelled out anew into 86 departments. In 1860, the French territory was enlarged by the annexation of the duchy of Savoy and the county of Nice, both of which were ceded by Sardinia. With these, divided into three departments, and the island of Corsica, France now contains 89 departments. The following table exhibits the old provinces as well as the modern departments.

Provinces.	Departments.	Chief Towns.
French Flanders .....	Nord .....	{ Lille, Douai, Cambrai, Dunkirk.
Artois .....	Pas de Calais .....	{ Arras, St Omer, Calais, Boulogne.
Picardy.....	Somme .....	Amiens, Abbeville.
Normandy .....	Lower Seine .....	Rouen, Dieppe, Havre.
	Eure .....	Evreux.
	Calvados .....	Caen.
	Manche.....	St Lô, Cherbourg.
Isle of France .....	Orne.....	Alençon.
	Aisne.....	Laon, Soissons.
	Oise .....	Beauvais.
	Seine and Oise .....	Versailles, St Germain.
Champagne.....	Seine.....	PARIS, St Denis.
	Seine and Marne.....	Melun, Fontainebleau.
	Ardennes.....	Mézières, Sedan.
	Marne .....	Châlons, Reims.
Lorraine.....	Aube .....	Troyes.
	Upper Marne .....	Chaumont.
	Meuse.....	Bar-le-Duc, Verdun.
	Moselle.....	Metz, Thionville.
Alsace .....	Meurthe .....	Nancy, Lunéville.
	Vosges.....	Epinal.
	Lower Rhine.....	Strasbourg.
	Upper Rhine.....	Colmar.
Franche-Comté.....	Upper Saône.....	Vesoul.
	Doubs.....	Besançon.
	Jura.....	Lons-le-Saulnier.
	Yonne.....	Auxerre, Sens.
Burgundy.....	Côte d'Or .....	Dijon.
	Saône and Loire .....	Mâcon, Autun.
	Ain .....	Bourg.
	Eure and Loir .....	Chartres.
Orléanais.....	Loiret.....	Orléans.
	Loir and Cher.....	Blois.
	Mayenne .....	Laval, Mayenne.
	Sarthe .....	Le Mans.

Provinces.	Departments.	Chief Towns.
Bretagne .....	Ille and Vilaine.....	Rennes, St Malo.
	Côtes du Nord.....	St Brieuc.
	Finistère .....	Quimper, Brest, Morlaix.
	Morbihan .....	Vannes, L'Orient.
	Lower Loire .....	Nantes.
Anjou.....	Maine and Loire.....	Angers, Saumur.
Touraine.....	Indre and Loire.....	Tours.
Berri.....	Cher .....	Bourges.
	Indre.....	Châteauroux.
Nivernais .....	Nièvre.....	Nevers.
Bourbonnais.....	Allier .....	Moulins.
Lyonnais.....	Rhone.....	Lyons.
	Loire.....	Montbrison, St Etienne.
Auvergne.....	Puy de Dôme.....	Clermont.
	Cantal.....	Aurillac.
La Marche .....	Creuse.....	Guéret.
Poitou .....	Vendée .....	Napoléon-Vendée.
	Deux Sèvres.....	Niort.
	Vienne.....	Poitiers.
Aunis .....	Lower Charente ...	La Rochelle, Rochefort,
Saintonge.....		Saintes.
Angoumois .....	Charente .....	Angoulême, Cognac.
Limousin.....	Upper Vienne .....	Limoges.
	Corrèze.....	Tulle.
	Dordogne .....	Périgueux.
Guienne.....	Gironde.....	Bordeaux.
	Lot.....	Cahors.
	Aveyron .....	Rodez.
	Tarn and Garonne...	Montauban.
	Lot and Garonne ....	Agen.
	Landes.....	Mont-de-Marsan.
	Gers .....	Auch.
	Upper Pyrenees .....	Tarbes, Bagnères.
	Ardèche.....	Privas.
	Upper Loire.....	Le Puy.
Languedoc .....	Lozère.....	Mende.
	Gard .....	Nîmes.
	Hérault.....	Montpellier.
	Tarn.....	Alby, Castres.
	Upper Garonne.....	Toulouse.
	Aude.....	Carcassonne, Narbonne.
	Isère .....	Grenoble, Vienne.
Dauphiny.....	Drôme.....	Valence.
	Upper Alps.....	Gap.
	Lower Alps .....	Digne.
Provence .....	Var .....	Draguignan, Toulon.
	Mouths of the Rhone.	Marseilles, Aix, Arles.
Comtat d'Avignon....	Vaucluse.....	Avignon.
Roussillon .....	Eastern Pyrenees....	Perpignan.
Comtat de Foix.....	Ariège .....	Foix.
Béarn .....	Lower Pyrenees .....	Pau, Bayonne.
<i>Annexed Territories</i>	Corsica .....	Ajaccio, Bastia.
	Maritime Alps.....	Nice.
	Savoy .....	Chambery.
	Upper Savoy.....	L'Hopital.



**ISLANDS.**—Ushant, Belle Isle, Noirmoutier, Rhé, Oleron, Hières, Corsica.

**CAPIES.**—La Hogue, Barfleur.

**MOUNTAINS.**—Pyrenees, part of the Alps, Cevennes, Cantal, Puy de Dôme, Côte d'Or, Vosges, Mount Jura.

**RIVERS.**—Seine, Loire, Garonne, Rhône, Rhine, Moselle, Meuse, Schelde or Escant, Somme, Marne, Saône, Orne, Vilaine, Sèvre, Charente, Dordogne, Adour.

**FOREIGN POSSESSIONS.**—In the West Indies, Martinique, Gaudaloupe, etc.; in South America, French Guiana, or Cayenne; in North America, St Pierre and Miquelon; in Africa, Algeria, settlements on the Senegal, and the Islands of St Louis and Goree; in the Indian Ocean, the Isle of Bourbon or Reunion and St Marie; in Asia, the Indian settlements of Pondicherry, Chandernagore, Carri-cal, Mahé, etc., and six provinces in Lower Cochin China; in Oceania, the Marquesas, Tahiti, and New Caledonia.

#### REMARKS.

France lies between  $42^{\circ} 20'$  and  $51^{\circ} 5'$  N. lat., and between  $4^{\circ} 46'$  W. and  $8^{\circ} 16'$  E. long. Its length, from north to south, is 600 miles; its breadth, from east to west, 560 miles.

Although in a country of such extent much variety may be expected, the general appearance of France is level. In the hilly districts, and in the valleys through which its rivers glide, particularly the Seine and the Loire, the scenery is often highly picturesque and beautiful; but the country may be regarded as in general tame and uninteresting. The traveller has to proceed 400 miles south from Calais, before he reaches the mountains of Auvergne, which are connected with those of Dauphiny, Languedoc, and Provence. This enormous assemblage of rocks, chiefly basaltic, extends 120 miles. The other ridges are the Vosges Mountains on the eastern frontier; a chain of the Alps, which penetrates into Provence and Dauphiny, and stretching northward, separates France from Italy and Switzerland; and the Pyrenees, the mountain-barrier between France and Spain.

Placed in the middle of the temperate zone, France enjoys a peculiarly fine climate. It varies, indeed, considerably in the different regions. In the north it resembles that of the south-west of England; although in summer it is rather hotter, as well as more humid; while in winter the cold is sometimes more severe. In the central region, particularly in the provinces of Touraine and Limousin, the temperature is delightful,

and the air pure, light, and elastic ; but violent storms of rain and hail occasionally destroy the vintage and corn, and frosts occur later in spring and earlier in autumn than in the south of England. The heat in the southern region is excessive during the months of June, July, August, and part of September. October and November are here the pleasantest months of the year. In the mountainous tracts of this region storms often rage with great violence ; and the swarms of flies and other insects are equally annoying and destructive.

The soil is various,—but the greater part of it is highly fertile, and produces excellent crops. Grain of all kinds is raised in the northern districts, which are scarcely favourable to the growth of the vine ; and beet-root is extensively grown for the manufacture of sugar. In the middle districts, vines and every species of grain grow luxuriantly ; while, in the southern districts, olives, maize, and even the orange, are cultivated with advantage. The wines of France, particularly those of Burgundy, Champagne, and Bordeaux, are among the most esteemed in Europe. Agriculture has of late undergone some improvement, but suffers much from the too great subdivision of property, there being more than five millions of proprietors, half of whom hold lands not exceeding £3 or £4 of yearly value. Coal is found in various parts, and is wrought for the use of manufactories, but, as it is little employed for domestic fuel, great plantations are raised in almost every part of the country, both for fire-wood and for covert to the beasts of the chase. Among the wild animals is the wolf ; and the bear is still found in the Pyrenees. Provence, Languedoc, and Dauphiny, maintain large flocks of sheep. The most extensive and fertile pastures for cattle are in Normandy and Auvergne.

The minerals of France are of considerable importance. Iron and lead abound in Bretagne. Antimony is found in various places in such quantities as would supply all Europe. Silver, copper, cobalt, manganese, zinc, vitriol, and alum, may be enumerated among the other productions of the French mines. Jet is found in great quantities in the department of Aube ; and turquoises, little inferior to those of the East, are gathered among the mountains of Aveyron. Excellent freestone occurs in many parts of the kingdom, especially in the neighbourhood of Paris ; and there are quarries of jasper in Franche-Comté, and of beautiful marble in the Pyrenees. At Salins, in Franche-Comté, are salt-springs. The principal mineral waters are at

Aix, Bagnères, and Barèges. The hot springs of Barèges are well known.

Among the natural curiosities of France, the most remarkable is the plain of La Crau, on the east side of the Rhone. It covers an area of about 20 square leagues, filled with gravel of quartz,—some pieces as large as a man's head,—the whole plain being as destitute of vegetation as the shingle of the sea-shore.

France abounds in antiquities. At Nîmes there are many interesting remains of Roman art, such as the house called the *Maison Quarrée*;—a beautiful fountain, with the ruins of baths, statues, and other decorations;—a building supposed to have been a pantheon;—and the walls of an amphitheatre, nearly as spacious as the Coliseum of Rome. Stone circles and other monuments, at one time regarded as Druidical, are found in Picardy; and on the coast of Vannes, in Bretagne, there is a monument of this kind which almost rivals that of Stonehenge. In the cathedral church of Bayeux, in Normandy, is preserved a roll of tapestry, said to be the work of Matilda, wife of William the Conqueror, representing the progress and termination of the eventful contest between her husband and Harold.

In political importance, France is one of the first countries in the world. The compactness of her territory gives her the ready command of a dense population; her resources are ample; and her subjects, active, brave, and fond of military glory, rush eagerly at the slightest call to reinforce her armies. Her history under Napoleon I. proves what she is able to achieve in war. In 1812, her army amounted to 600,000 men; and it was computed to be not much less under Napoleon III. in 1855, during the Russian war, and again in 1859 during the conquest of Lombardy. Since that period the peace establishment of the army consists of 400,000 men. The navy has of late been greatly increased. It consists of nearly 500 vessels of various descriptions, manned by about 43,000 sailors and officers. The revenue of France is estimated at £79,000,000 yearly: her debt is £540,000,000.

Ample as her resources are, France yields the palm, both in manufactures and in commerce, to Britain. Her silks and woollen cloths are remarkable for their durability and fine colours; her laces and linens, her plate-glass and porcelain, are in extensive demand; and her wines, brandies, and printed books, are exported everywhere. It was not until 1860 that she began to relax the fetters of protective and prohibitory duties

which had so long crippled her commerce and manufactures; and since that date her commerce has greatly increased. The annual value of exports now amounts to £160,000,000 sterling, the imports to £140,000,000. Her canals are estimated at upwards of 2000 miles. Her railway system has of late made rapid progress, lines extending to an aggregate of nearly 8000 miles being in operation.

The predominant religion is the Roman-catholic, with nearly 2,000,000 of Protestants and 150,000 Jews. These three denominations receive state aid, and all other sects are tolerated. Public education is liberally encouraged by the state. The French are characterized by their gaiety and good humour, and their polite attention to strangers. In literature and science they have long held a distinguished place. The *Franks*, a people from the banks of the Rhine, entered France in the fifth century, and gave their name to the country.

After the tumults of the Revolution of 1789 had subsided, France gradually returned from the anarchy of republicanism to the more settled state of monarchy. Under Napoleon Bonaparte, who assumed the sovereign power as Emperor in 1804, the government was military and absolute; but on the restoration of the Bourbon family in 1815, various reforms were made tending to assimilate it more nearly to that of Britain. The Revolution of 1830 expelled the elder branch of the Bourbons, and called Louis Phillippe, Duke of Orleans to the throne. In February 1848, a third Revolution was effected, followed by the flight of the king and the royal family, the abolition of monarchical institutions, and the establishment of a republic. Prince Louis Napoleon Bonaparte, the nephew of the Emperor Napoleon, was chosen the first President by an overwhelming majority of the electors. In December 1851, he suppressed the National Assembly, and appealed to the people to ratify his acts, and to prolong his tenure of the Presidency for ten years. The appeal was successful; and in December 1852, a vast majority of the voters ratified the Prince President's revival of the Empire, and assumption of the title of Napoleon III., Emperor of the French. The government is under the especial control of the Emperor. It consists of a ministry and council of state nominated by the Emperor, and a legislative body elected by the people.

#### EXERCISES.

What are the boundaries of France? What is its extent in square miles? What population does it contain? What are its provinces?

Into what departments have these provinces been divided? What accessions of territory has France recently gained? What are the principal towns of Picardy? Of Normandy? etc. Name the chief islands of France—its capes—its mountains—its rivers—its foreign possessions. Where are Pau, Paris, Caen, Marseilles, Versailles, Narbonne, Dunkirk, Calais, La Rochelle, Agen? etc. Where are the Cevennes Mountains, La Hogue, the Seine, Noirmoutier, the Somme, Orne, Loire, Belle Isle, Barfleur, Vosges, Puy de Dôme? etc.

Between what degrees of latitude and longitude is France situated? What are its length and breadth? What is its general appearance? In what parts of the country does picturesque and beautiful scenery occur? At what distance from Calais does the traveller meet with mountains? What is the extent of this enormous assemblage of rocks? What are the other principal ridges of mountains in France?

What kind of climate has France? What country does the northern region resemble in climate, and with what difference? Describe the climate of the central region. During what months does excessive heat prevail in the southern region? What are the pleasantest months of the year there? To what evils is this part of the country exposed?

What is the general character of the soil? What are the prevailing productions in the several districts? Has agriculture lately undergone any improvement? For what purposes are great plantations raised in every part of the country? By what species of wild animals is France infested? What provinces maintain large flocks of sheep? In what provinces are the most extensive pastures for cattle?

Are the minerals of France important? Enumerate its principal metals. Where does jet abound? Where are turquoises found? Where do quarries of freestone, of jasper, and of beautiful marble occur? Where are salt-springs found? Where are the principal mineral springs? What is the most remarkable natural curiosity in France? Does France abound in antiquities? At what place are the most remarkable monuments of Roman art? Mention the principal of them. In what provinces are so-called Druidical monuments to be seen? What relic of antiquity is preserved in the cathedral church of Bayeux?

What rank does France hold in political importance? What circumstances contribute to her military strength? When did she prove what she is able to achieve in war? What was the amount of her army in 1812? What has been its amount under the present Emperor? What is her revenue and debt?

Is France equal to Great Britain in commerce and manufactures? Mention some of her principal manufactures. For what are her silks and woollen cloths remarkable? By what has her trade been fettered and circumscribed? When did she begin to relax these fetters?

What is the predominant religion? Is education encouraged? What is the general character of the people? What place do they hold in literature and science? From what people was the name of France derived? Through what changes has the government of France passed since the Revolution of 1789? What were the changes effected by the Revolutions of 1830 and 1848? When did Prince Louis Napoleon assume the title of emperor? What is the present government of France?

## DESCRIPTIVE TABLE.

**ABBEVILLE**, a manufacturing town in Picardy, in the department of Somme, on the river of that name. Pop. 20,058.—50° 7' N. lat. 1° 50' E. long.

**Adour** (Adoor'), a river which rises in the Pyrenees, and flows into the Bay of Biscay below Bayonne.

**Agde**, a seaport and fortress in Languedoc, department of Hérault, near the mouth of the Canal du Midi. Pop. 9747.

**Agen** (Aw'zheng), a town in Guienne, capital of the department of Lot and Garonne. In the vicinity there is a beautiful view over the rich valley of the Garonne, with the Pyrenees in the distance. Pop. 17,263.

**Agincourt** (Ad'jinkoor), a village in Artois, department of Pas de Calais, famous for the great victory gained over the French by Henry V. of England, on the 25th October 1415. Pop. 438.

**Ain**, a river which rises in Mount Jura, and falls into the Rhone above Lyons.

**Aisne**, a river which rises on the borders of Lorraine, and, passing Soissons, joins the Oise near Compiègne.

**Aix** (Aiz), a city of Provence, department of Mouths of the Rhone, founded by the Romans 123 B. C., who named it *Aquæ Sextiæ*, from its celebrated hot springs; it has considerable trade and manufactures. Pop. 28,152.—43, 32 N. 5, 27 E.

**Ajac'cio**, a seaport, the capital of Corsica, and the birthplace of Napoleon Bonaparte in 1769. Pop. 14,098.—41, 55 N. 8, 44 E.

**Al'ais**, a town in Languedoc, department of Gard, at the foot of the Cevennes. It has a large trade in raw and dressed silk, with extensive iron-works. Pop. 20,257.

**Al'bi**, an ancient city of Languedoc, capital of the department of Tarn, with a fine cathedral. Pop. 15,493.

**Alençon**, a town in Normandy, capital of the department of Orne, on the Sarthe; it has extensive manufactures. Pop. 16,110.—48, 25 N. 0, 6 E.

**Al'lier**, a river which rises in the Cevennes, flows northward, and, passing Moulins, enters the Loire below Nevers.

**Alsace'**, a province in the N. E. of the empire, bounded on the east by the Rhine.

**Am'and**, St., a town in French Flanders, department of Nord, on the Scarpe, with a great trade in flax. Pop. 10,210.

**Am'bert**, a town in Auvergne, department of Puy de Dôme, in the fine valley of the Dore, celebrated for its paper manufactures. Pop. 7661.

**A'miens**, the *Samarobriva* of the Romans, a city in Picardy, capital of the department of Somme, with considerable manufactures. Its cathedral is a noble edifice. Here was concluded a short-lived treaty of peace, in 1802, between Britain and France. P. 61,063.—49, 53 N. 2, 18 E.

**Angers'**, a town in Anjou, capital of the department of Maine and Loire, near the junction of the Sarthe and Mayenne; it has a considerable trade. Pop. 54,791.—47, 28 N. 0, 33 W.

**Angoulême'**, a handsome town in Angoumois, capital of the department of Charente, in a beautiful valley, through which flows the Charente. It is celebrated for its paper manufactures. P. 25,116.—45, 39 N. 0, 10 E.

**Angoumais'**, a province in the west of the empire.

**Anjou** (Awngzhoo'), a province south-east of Bretagne.

**Anno'nay**, a thriving manufacturing town in Languedoc, department of Ardèche. Pop. 16,271.

**Ariège'**, a river which has its source in the Pyrenees, passes Foix, and falls into the Garonne near Toulouse.

**Arles**, the ancient *Arelate*, a city of Provence, department of Mouths of the Rhone. Pop. 26,367.

**Ar'ras**, the ancient *Nemetacum*, a strong town in Artois, capital of the department of Pas-de-Calais, on the Scarpe. It was long famous for its manufacture of tapestry, which hence took the name of *arras*. Pop. 25,749.—50, 17 N. 2, 46 E.

**Artois** (Ar'twa), a province in the north of the empire.

**Auch** (Osh), a city in Gascony, capital of the department of Gers; it has an ancient cathedral. P. 11,899.

**Auril'lac**, a town in Auvergne, capital of the department of Cantal, on the Jordanne. Pop. 10,936.

**Autun** (O'teung), the ancient *Bi-bracte* and *Augustodunum*, a city in Burgundy, department of Saône and Loire, containing numerous remains of Roman art. Pop. 11,897.

**Auvergne**, a mountainous province in the interior.

**Auxerre** (Ozarn'), a city in Burgundy, capital of the department of Yonne, surrounded by extensive vineyards. Pop. 16,061.

**Auxonne**, a fortified town in Burgundy, department of Côte d'Or, on the Seine, with an arsenal, military school, and cannon foundry. Pop. 7103.

**Aveyron**, a river which rises in the Cévennes, and, flowing W., joins the Tarn below Montauban.

**Avignon** (Avin'yong), a small province in the N. E.

**Avignon**, capital of the department of Vaucluse, on the Rhône, in a rich and fruitful plain. Near it is the celebrated fountain of Vaucluse hallowed by the names of Petrarch and Laura. Avignon was the residence of the Popes from 1309 till 1377, and it continued to belong to them until 1791, when it was annexed to France. Pop. 36,407.

**Avranches**, a town in Normandy, department of Manche, delightfully situated on the side of a hill about two miles from the sea. Pop. 8472.

**BACILLEREN**, a town in Gascogne, department of Upper Pyrenees, on the Adour, celebrated for its mineral waters and warm baths. Pop. 9169.

**Bargen**, a village about 12 miles N. of Bagneres, famed for its mineral hot springs.

**Bar'fleur**, a promontory and small seaport on the coast of Normandy, department of Manche. Pop. 1304. 49, 42 N. 1, 16 W.

**Bar le Duc**, a town in Lorraine, capital of the department of Meuse, on the Orne; the neighbouring country is celebrated for its wine. Pop. 14,922.

**Basque Route**, on the coast of Charante, between the Isle of Oléron, La Rochelle, and Rochefort.

**Bas'tin**, a seaport in Corsica, with a strong castle. Pop. 19,804. 42, 41 N. 9, 27 E.

**Bay'aux**, a town in Normandy, department of Calvados, with a fine cathedral. Pop. 9490.

**Bayonne**, a strong seaport in the department of Lower Pyrenees, at the confluence of the Nive and the Adour, four miles from the Bay of Biscay. Pop. 26,885. 43, 29 N. 1, 24 W.

**Bearn**, a small province in the N. W. of the empire.

**Beaune** (Bo), a town in Langue-

doc, department of Gard, on the Rhône, which is here spanned by a fine suspension bridge; its annual fair is one of the greatest in Europe. Pop. 9544.

**Beaune** (Bene), a town in Burgundy, department of Côte d'Or, famed for its wine. Pop. 10,719.

**Beauvais** (Bovay'), the ancient *Caesarmagus*, a thriving town, capital of the department of Oise; it has a fine cathedral, and is noted for its beautiful tapestry. Pop. 16,204.

**Bel'fort** or **Re'fort**, a strong town in Alsace, department of Upper Rhine, on a tributary of the Doubs. Pop. 4101.

**Belle Isle**, an island off the N. coast of Bretagne, department of Morbihan. Pop. 10,176. 47, 19 N. 3, 13 W.

**Bernard**, Little St., one of the Great Alps in Savoy, by which it is supposed Hannibal passed into Italy.

**Berri**, a province in the interior.

**Besançon**, the *Vesontio* of the Romans, a handsome fortified city in Franche-Comté, capital of the department of Doubs, with extensive trade and manufactures. Pop. 46,501. 47, 13 N. 6, 2 E.

**Béziers**, an ancient city of Lower Languedoc, department of Hérault, on the Orb, near the Royal Canal, the centre of a considerable trade. Pop. 27,722.

**Blanc Mount** (Blawng), on the borders of Savoy and Piedmont, the highest mountain of Europe, exhibiting all the grandeur and desolation of Alpine scenery. Its summit is 15,700 feet above the sea.

**Blas** (Blaw), a city in Orléanais, capital of the department of Loir and Cher, on the Loire, overhanging which is the celebrated castle of Blas. Pop. 20,000. 47, 35 N. 1, 20 E.

**Bordeaux** (Bor'do), the *Burdigala* of the ancients, one of the most opulent and elegant cities in France, capital of the department of Gironde, situated on the Garonne. The commerce of Bordeaux is very extensive, its great articles of export being wine, brandy, and fruits. Pop. 194,241. 44, 50 N. 0, 34 W.

**Boulogne**, a seaport in Artois, department of Pas de Calais; a place of great resort for English families. Pop. 40,251. 50, 44 N. 1, 37 E.

**Bourbonnais**, a province in the interior of the empire.

**Bourbon-Vendée**. See *Napoleon-Vendée*.

**Beaune**, a city in Burgundy, capital of the department of Ain, near which are a stately church and mausoleum. Pop. 14,000.

**Beziers**, the ancient *Betrisium*, a city in Languedoc, capital of the department of Hérault, at the confluence of the Aude and the Tarn, with a noble cathedral. Pop. 30,110.

**Brest**, a strongly fortified seaport in Brittany, department of Finistère, the chief naval station of France, on the Atlantic, with an excellent harbor, arsenal, and docks. Pop. 10,847. 48° 28' N. 4° 20' W.

**Breque** or *Bistany*, a large maritime province in the N. W.

**Briançon**, a strongly fortified town in Dauphine, department of Upper Alps, on the Rhodane. Pop. 4,510.

**Brienne**, St., a town in Brittany, capital of the department of Côtes du Nord. Pop. 13,341.

**Brievé**, a town in Languedoc, department of Corrèze, in a fertile valley on the river of that name. Pop. 1,854.

**Burgundy**, St. *Bourgogne*, a province in the E., celebrated for its fine wines.

**Caen**, (Kang) a commercial city of Normandy, capital of the department of Calvados, on the Orne, which is navigable for vessels of 200 tons. It contains several fine old edifices, and is the seat of a university. Here William the Conqueror was buried. Pop. 41,304. 49° 11' N. 0° 51' W.

**Caen**, a town in Calvados, capital of the department of Calvados, the high fertile country produces excellent wine. Pop. 13,500.

**Calais**, or *Calay*, a strong seaport of Artois, department of Pas de Calais, nearly opposite Dover in England, to which packets sail regularly. After a memorable siege, it surrendered to Edward III. in 1346, and remained in the possession of the English till 1558, when it was taken by the Duke of Guise. Pop. 19,004. 51° 26' N. 1° 31' E.

**Canal**, an ancient city of French Flanders, department of Nord, with a strong citadel. It was the archiepiscopal see of Flanders and has been long famed for the manufacture of cambric, a name derived from this city. Pop. 29,007. 50° 10' N. 3° 13' E.

**Cantal**, a chain of mountains in Auvergne; of which the *Mont de Cantal* is 6,000 and the *Puy de Sancy* 6,224 feet high.

**Carcassonne**, a handsome town in

Languedoc, capital of the department of Aude, with manufactures of cloth. Pop. 20,173.

**Castres**, a town in Languedoc, department of Tarn, on the Agout, the seat of considerable manufactures. Pop. 21,331.

**Cette**, a strong seaport in Languedoc, department of Hérault, on an inlet of the Gulf of Lions, with a flourishing trade. Pop. 24,177. 43° 24' N. 3° 40' E.

**Cevennes**, a chain of mountains in Languedoc, remarkable as the retreat of the persecuted Protestants in the 17th century.

**Châlons sur Marne** (*Cha long*), an ancient town in Champagne, capital of the department of Marne P. 18,113.

**Châlons sur Saône**, a town in Burgundy, department of Saône and Loire, situated at the entrance of the central canal which unites the Saône and the Loire. Pop. 12,700.

**Chambéry**, an episcopal city on the Savoy, the capital of the ancient duchy of Savoy, ceded in 1560 by Mary II. to France, to which it belonged from 1599 to 1815, when Chambéry was the capital of the department of Mount Blanc. It is now the capital of the department of Savoy. Pop. 12,000. 45° 20' N. 6° 31' E.

**Chamonix**, St., a busy manufacturing town in Savoy, department of Haute-Savoie, at the confluence of the Arve and the Jonction. Pop. 11,000.

**Chamonix**, a celebrated valley in Savoy, at the foot of Mount Blanc.

**Champagne**, (*Champan*) a province in the N. E., celebrated for the wine to which it gives name.

**Chantilly**, a pretty town, department of Oise, on the Nonette, a principal centre of the lace manufactures, celebrated for its royal palace and park, and magnificent gardens and waterworks. Pop. 12,000.

**Charente**, (*Charant*) a river which rises in Poitou, and, flowing by a very circuitous course, passes Cognac and Saintes, and falls into the Bay of Biscay below Rochefort.

**Charleville**, a town in Champagne, department of Ardennes, on the Meuse, with a manufacture of arms and considerable trade. Pop. 10,000.

**Châtillon**, a city of Champagne, capital of the department of Aube and Troy, situated on the Aube, with a noble cathedral. Pop. 19,000.

**Châteaufort** (*Chato fort*), a town in Hérault, capital of the department of



Indre, with large woollen manufactures. Pop. 16,170.

Châtellerault' (ero'), a town of Poitou, department of Vienne, noted for its cutlery and arms. Pop. 14,210.

Chaumont (Sho'mong), a town in Champagne, capital of the department of Upper Marne. Pop. 7140.

Cher, a river which rises in the mountains of Auvergne, washes St Amand, and flows into the Loire near Tours.

Cherbourg (Sher'boorg), an important seaport, arsenal, and strong fortress, in Normandy, department of Manche, between Capes La Hogue and Barfleur. Pop. 37,215.—49, 38 N. 1, 37 W.

Cholet', a town in Anjou, department of Maine and Loire, famed for its cambric manufactures. Pop. 12,735.

Clermont (Clair'mong), a city in Auvergne, capital of the department of Puy de Dôme. It is the birth-place of Pascal and the seat of a college, and has considerable trade. Pop. 37,690.—45, 46 N. 3, 5 E.

Cloud, St, a small town 7 miles W. from Paris, with a magnificent palace and park, a favourite residence of Napoleon III. Pop. 5613.

Cognac (Coniak'), a town in Angoumois, department of Charente, on the river of that name, famed for its brandy. Pop. 8167.

Colmar', a town in Alsace, capital of the department of Upper Rhine, situated near the Ill, in a fertile plain, a principal seat of the cotton manufacture. Pop. 23,669.

Compiègne', a town in the department of Oise, near the junction of the Oise with the Aisne, 45 miles N. of Paris, with a royal palace. Pop. 12,137.

Con'dé, a strong frontier fortress in French Flanders, department of Nord, on the Schelde. Pop. 5804.

Con'dom, a town in Guienne, department of Gers, on the Baise, with a good trade in wine and flour. Pop. 8175.

Cor'sica, a large island in the Mediterranean, to the N. of Sardinia, from which it is separated by the Straits of Bonifacio. It abounds in mountains and forests, diversified with fertile plains. The greatest elevation, Mount Rotondo, is 9068 feet high. Pop. 259,861.

Coutances', a seaport in Normandy, department of Manche, with a fine cathedral. Pop. 8062.

Cres'sy or Cre'cy, a village in Picardy, department of Somme, to the north of Abbeville, memorable for the great victory gained by Edward III. over the French in 1346. Pop. 1732.

DAUPHINY, a large and mountainous province in the S. E., bounded by the Alps.

Dax, the *Aquæ* of the Romans, a town in Gascony, department of Landes, on the Adour, with a strong castle; it is famed for its hot mineral springs. Pop. 9856.

Den'is, St, a town in the department of Seine, 5 miles N. of Paris, with a celebrated abbey, the burial-place of the French kings. P. 26,117.

Dieppe', a seaport of Normandy, department of Lower Seine, between which and England there is a regular intercourse by steam-vessels. Pop. 19,946.—49, 55 N. 1, 5 E.

Digne, a town in Provence, capital of the department of Lower Alps, on the Bleone, a tributary of the Durance. Pop. 6544.

Dijon (Deezhong'), a city in Burgundy, capital of the department of Côte d'Or, in a fertile plain. It has many fine buildings, and is the seat of a university. Bossuet and Crébillon were natives of Dijon. Pop. 39,193.—47, 19 N. 5, 2 E.

Din'an, a town of Bretagne, department of Côtes du Nord, on the Rance, much frequented for its mineral waters. Pop. 8089.

Dôle, an ancient town in Franche-Comté, department of Jura, on the Doubs, and on the canal uniting the Rhone with the Rhine. Pop. 10,605.

Dordogne', a large river which rises in the mountains of Auvergne, and joins the Garonne below Bordeaux.

Dou'ai, a fortified town in French Flanders, department of Nord, on the Scarpe, the seat of a university, with a large arsenal and foundry for cannon. Pop. 24,105.—50, 22 N. 3, 4 E.

Draguign'an, a town in Provence, capital of the department of Var, surrounded by an amphitheatre of hills. Pop. 10,082.

Dreux, an ancient town, department of Eure and Loir, with a costly chapel erected by Louis Philippe. Pop. 6940.

Dun'kirk (Fr. Dunkerque), a strong seaport of French Flanders, department of Nord, with an excellent roadstead. Pop. 33,083.—51, 2 N. 2, 23 E.

**Durance'**, a rapid river rising in Mount Genève, and discharging itself into the Rhone near Avignon. It is the *Druentia* of the Romans, which Hannibal crossed in his march to the passage of the Alps.

**ELBEUF'**, a town in Normandy, department of Lower Seine, the principal seat of the French woollen manufactures. Pop. 21,784.

**Em'brun**, a town with a strong citadel, in Dauphiny, department of Upper Alps, on the Durance. Pop. 4287.

**Epinal'**, a town in Lorraine, capital of the department of Vosges, on the Moselle. Pop. 11,957.

**Etienne'**, St, a flourishing town in Lyonnais, department of Loire, with extensive manufactures of arms, hardware, and ribands. Pop. 96,620.—45, 26 N. 4, 23 E.

**Evreux'**, an ancient town in Normandy, capital of the department of Eure; it is situated on the Iton, in a fertile valley, and has considerable trade. Pop. 12,265.

**FALAISE'**, a manufacturing town in Normandy, department of Calvados, the birthplace of William the Conqueror: here is a strong castle. Pop. 8561.

**Fecamp**, a seaport in Normandy, department of Lower Seine. Pop. 12,243.

**Flèche, La**, a town in Anjou, department of Sarthe, on the Loir, noted for its military school founded by Napoleon I. Pop. 7077.

**Foix (Foaw)**, a town in Comtat de Foix, capital of the department of Ariège. Pop. 5507.

**Fontainebleau (blo')**, a town in the department of Seine and Marne, 35 miles S. E. of Paris, surrounded by a forest of 40,620 acres; its royal palace was a favourite residence of Napoleon I. Pop. 11,939.

**France, Isle of**, a province in which the capital is situated; it now forms the departments of Oise, Seine, Seine and Oise, and Seine and Marne.

**Franche-Comté (Cong'tay)**, a province on the borders of Switzerland.

**GAP**, a town in Dauphiny, capital of the department of Upper Alps, in a deep valley among mountains. P. 8219.

**Gard**, a river which rises in the Cevennes, and flows into the Rhone near Beaucaire.

**Garonne'**, a large river which rises in the Pyrenees, and traverses the

S. W. region of the empire; below Bordeaux it receives the Dordogne, when it takes the name of the Gironde.

**Gas'cony (Fr. Gascogne)**, a province in the S. W.

**Ger'main-en-Laye, St**, a town in the department of Seine and Oise, on the Seine, 14 miles N. W. of Paris, in the vicinity of a fine forest. Its ancient castle and magnificent terrace, 1½ mile in length, command a delightful view. Pop. 12,263.

**Gers**, a river which rises in the Pyrenees, and, flowing northward, falls into the Garonne above Agen.

**Gironde'**, a river or estuary, formed by the junction of the Garonne and Dordogne, discharging its waters into the Atlantic after a course of 45 miles.

**Giv'et**, a strong frontier-fortress in Champagne, department of Ardennes, on the Meuse. Pop. 6404.

**Gran'ville**, a fortified seaport in Normandy, department of Manche, with a good trade in the fisheries. Pop. 17,180.

**Grasse**, a town in Provence, department of the Maritime Alps, on the declivity of a hill, surrounded by rich fields and gardens. Pop. 12,015.

**Gravelines'**, a strong seaport in French Flanders, department of Nord. Pop. 6428.

**Gray**, a town of Franche-Comté, department of Upper Saône, noted for its corn-market, and its transit trade in colonial produce. Pop. 6215.

**Greno'ble**, a strong town in Dauphiny, capital of the department of Isère, famous for its manufacture of gloves. P. 40,484.—45, 12 N. 5, 43 E.

**Gueret'**, a town in La Marche, capital of the department of Creuse. Pop. 3695.

**Guienne'**, a province in the S. W., separated from Gascony by the Garonne.

**HAGUENEAU (no')**, a fortified town in Alsace, department of Lower Rhine, on the Moder. Pop. 11,071.

**Havre, Le, or Havre de Grace (Grass)**, a strong and flourishing seaport in Normandy, department of Lower Seine, at the mouth of the Seine. Pop. 74,900.—49, 29 N. 0, 6 E.

**Haze'brouck**, a handsome manufacturing town in French Flanders, department of Nord, on the Bourre. Pop. 5567.

**Hier'es**, a cluster of islets in the Mediterranean, S. E. of Toulon.

**Hogue, La**, a cape in the N. W. of Normandy, department of Manche. —49, 43 N. 1, 57 W.

**Hon'fleur**, a seaport in Normandy, department of Calvados, at the mouth of the Seine. Pop. 9553.

**ISÈRE**, a rapid river which rises in the Alps, passes Grenoble, and falls into the Rhone above Valence.

**Isson'dun**, a manufacturing town in Burri, department of Indre. Pop. 14,292.

**JU'RA**, Mount, a chain of mountains between France and Switzerland; the highest peak is 6568 feet above the sea.

**LANDRE'CIES**, a strong town in French Flanders, department of Nord, on the Sambre. Pop. 4193.

**Lan'gres**, an ancient town in Champagne, department of Upper Marne, near the sources of the Marne; it is noted for its cutlery. Pop. 10,132.

**Languedoc**, an extensive province in the south, celebrated for its fine climate and fertile plains.

**Languedoc**, the Canal of, extends from the Mediterranean to Toulouse, where it enters the Garonne, forming an inland navigation from sea to sea. It is 150 miles long, and cost more than £1,300,000.

**La'on**, a town in the Isle of France, capital of the department of Aisne. Pop. 10,090.

**Laval**, a town in Maine, capital of the department of Mayenne, with linen manufactures. Pop. 27,199.

**Lille** or **Lisle**, a flourishing city in French Flanders, capital of the department of Nord, and one of the strongest fortresses in Europe. It has extensive trade and manufactures. Pop. 154,749.—50, 39 N. 3, 4 E.

**Limoges**, a town in Limousin, capital of the department of Upper Vienne, with woollen and porcelain manufactures. Pop. 53,022.

**Limou'sin** (seng), an interior province W. of Auvergne.

**Lislenz**, a thriving manufacturing town in Normandy, department of Calvados, on the Touque. P. 13,121.

**L'A, St**, a manufacturing town in Normandy, capital of the department of Manche, on the Vire. Pop. 9610.

**Lodeve**, a strong town in Languedoc, department of Hérault, at the foot of the Cevennes, with great cloth manufactures. Pop. 11,964.

**Loire** (Loavr'), a large river, which has its source in the Cevennes, and traverses the central region of the

empire. Its course is N. W. to Orléans; thence, flowing westward, it discharges itself into the Atlantic below Nantes.

**Lons-le-Sau'nier** (Long), a town in Franche-Comté, capital of the department of Jura. Pop. 9662.

**Lorient** (ang), a strong and handsome seaport in Bretagne, department of Morbihan, with a royal arsenal and dockyard. Pop. 37,655.—47, 44 N. 8, 21 W.

**Lorraine**, a province in the N. E., bounded on the north by the grand-duchy of Luxemburg.

**Loudeac**, a town in Bretagne, department of Côtes du Nord, the centre of a large linen trade. Pop. 6061.

**Louviers**, a flourishing town of Normandy, department of Eure, a principal seat of the manufacture of fine cloths. Pop. 10,841.

**Lune'ville**, a town in Lorraine, department of Meurthe, with a military school. Pop. 15,523.

**Lyon'nais**, a province in the S. E., separated from Dauphiny by the Rhone.

**Ly'ons**, (Fr. Lyon), a city in Lyonnais, capital of the department of Rhone, at the confluence of the Rhone and Saône. It is, in point of wealth, the second city in France, and is distinguished for its extensive manufactures of silk and other rich fabrics. Lyons, the *Lugdunum* of the ancients, was early an important place, and still shows several remains of Roman magnificence. Pop. 323,954.—45, 45 N. 4, 49 E.

**MACON** (Makong), a town in Burgundy, capital of the department of Saône and Loire, noted for its excellent wine. Pop. 18,006.

**Maine**, a province in the W., bounded on the N. by Normandy.

**Ma'lo, St**, a strong seaport in Bretagne, department of Ille and Vilaine; it has a good trade, and is much frequented as a watering-place. Pop. 9330.—48, 39 N. 2, 1 W.

**Mans** (Mawng), Le, a manufacturing town in Maine, capital of the department of Sarthe. Pop. 45,230.

**Marche** (Marsh), La, a province between Poitou and Auvergne.

**Marne**, a large river which rises in the heights of Langres in Champagne, and enters the Seine at Charenton, near Paris.

**Marseilles** (Fr. Marseille), the ancient *Massilia*, a flourishing commercial city and seaport in Provence,

in the Mediterranean, capital of the department of Ardennes of the Rhine in the great commercial trade to the interior. Pop. 25,131—43, 17 N. 1, 20 E.

Montargis, a strong frontier town in French Burgundy, department of Loire, on the Saône. Pop. 11,527.

Murcie, a river which rises in Languedoc, passes Arles, and falls into the sea.

Murviel, a town in Auvergne, department of Murcie, destroyed by royal troops. Pop. 11,771.

Mussey, a town in Lorraine, department of Meuse and Moselle, the principal one of the celebrated French. Pop. 11,762.

Nancy, a town in the left of France, capital of the department of Meuse and Moselle, 25 miles S. E. of Paris. Pop. 11,171.

Nantes, a manufacturing town in Brittany, capital of the department of Loire. Pop. 63,711.

Nancy the ancient *Nepesinorum*, a strongly fortified city in Lorraine, capital of the department of Meuse, the principal one of the Meuse and Moselle, with considerable trade and manufactures. Pop. 54,217—43, 7 N. 1, 10 E.

Nancy a large river which rises in the Pyrenees, and, flowing northward, passes through Belgium and the S. of Holland, and falls into the North Sea near Rotterdam.

Nancy, a strong frontier town in Lorraine, capital of the department of Meuse and Moselle, on the Meuse. Pop. 11,762.

Nancy, a town and small principality 12 miles S. E. of Paris. Pop. of town, 1687; of principality, 217.

Nancy, a town and small principality in Lorraine, capital of the department of Meuse and Moselle, beautifully situated on the Meuse, and distinguished for its manufactures. Pop. 25,221—43, 1 N. 1, 21 E.

Nancy, a town in Lorraine, capital of the department of Meuse. Pop. 7,211.

Nancy, a town in Lorraine, capital of the department of Meuse, on the Meuse. Pop. 11,762.

Nancy, a town in Lorraine, department of Meuse, on the Meuse. Pop. 12,144.

Nancy, an ancient town in Lorraine, capital of the department

of Meuse, formed for its port and its climate. It was early the seat of a celebrated medical school, and has considerable trade and manufactures. Pop. 25,221.

Nancy, a town in Brittany, department of Finistère, with considerable trade. Pop. 14,166—43, 54 N. 1, 10 W.

Nancy, a river which rises in the Vosges Mountains, and, flowing northward, passes Metz; entering French Prussia, it falls into the Rhine at Coblenz.

Nancy (Nancy), a town in Brittany, capital of the department of Allier. It was the birthplace of Marshal Villars and of the Duke of Burgundy. Pop. 17,521.

Nancy, a town in Alsace, department of Upper Rhine, on the Ill, a chief seat of the French cotton manufacture. Pop. 16,773.

Nancy, an elegant city in Lorraine, capital of the department of Meuse. Its gates are like triumphal arches, and the Royal Square, built by Stanislaus, King of Poland, is adorned with beautiful fountains. Pop. 44,243—43, 41 N. 1, 11 E.

Nancy (Nancy), the ancient *Confluentium*, a large commercial city and seaport in Brittany, capital of the department of Lower Loire, at the mouth of the Loire, the seat of the French navy. The Edict of Nancy, granting toleration to the Protestants in France, was issued by Henry IV. in 1603, and revoked by Louis XIV. in 1685. Pop. 111,256—47, 13 N. 1, 33 W.

Nancy (Nancy), formerly *Reims-Vandoe*, a town in France, capital of the department of Vandoe. Pop. 16,766.

Nancy, an ancient city in Lorraine, department of Aude, with a fine cathedral. Pop. 16,762.

Nancy, a town in Lorraine, capital of the department of Nancy, at the junction of the Nancy and Moselle, celebrated for its apparel, porcelain, and iron works. Pop. 18,571.

Nancy (Nancy), an ancient town in the Med. Pyrenean, ceded in 1809 by Napoleon to France. Pop. 125,216. Along with portions of the department of Var, it has been annexed into the department of the Maritime Alps. Pop. 124,572.

Nancy (Nancy), an ancient city and seaport, the capital of the province of the same name, beautifully situated at the mouth of the Paglion. It is celebrated for its mild climate. It belonged to France from 1792 to

1814, and was again ceded to France by Sardinia in 1860. It is now the capital of the department of the Maritime Alps. Pop. 50,180.—43, 42 N. 7, 17 E.

Nîmes or Nismes, the ancient *Nemausus*, a city in Languedoc, capital of the department of Gard, in a fertile vale, encompassed by hills. It contains several interesting monuments of Roman antiquity. It has a flourishing silk manufacture. Pop. 60,240.—43, 50 N. 4, 21 E.

Niort, a town in Poitou, capital of the department of Deux Sèvres, situated on the picturesque banks of the Sèvre. Pop. 20,775.

Nivernais, a province in the interior, on the west of Burgundy.

Noirmoutier, an island on the coast of Bretagne, near the mouth of the Loire. Pop. 6248.

Nor'mandy, a maritime province on the English Channel.

OISE, a river which rises in the Ardennes, and, receiving the Aisne near Compiègne, falls into the Seine below St Germain.

Oléron, an island on the S. W. coast, opposite the mouth of the Charente. Pop. 18,178.—45, 55 N. 1, 20 W.

Omer, St, a strongly fortified town in Artois, department of Pas de Calais, on the Aa, the seat of an active trade. Pop. 21,869.—50, 44 N. 2, 15 E.

Orange, the ancient *Arausio*, a town in the department of Vaucluse, in a beautiful plain, near the Rhone; it has some interesting Roman remains. Pop. 10,007.

Orléanais, a province in the interior, S. of the Isle of France.

Orléans (Or'leang), the *Genabum* of the Romans, a city of Orléanais, capital of the department of Loiret, situated on the Loire, over which is a noble bridge. Its cathedral is a fine edifice; it is the seat of a university; and is famous for the memorable siege which its inhabitants, animated by Joan of Arc, sustained against the English in 1428. Pop. 49,100.—47, 54 N. 1, 54 E.

Orne, a river in Normandy, which falls into the English Channel below Caen.

Orth'ez, a town in Bearn, department of Lower Pyrenees, on the Gave-du-Pau. Near this the Duke of Wellington defeated the French army commanded by Marshal Soult, in 1814. Pop. 6724.

PARIS, the capital of the empire, and of the department of Seine, stands upon both banks of the Seine, over which there are 27 bridges. It is distinguished for its fine public buildings, palaces, gardens, promenades, and fountains. Its galleries, museums, and noble libraries excite universal admiration. The city and its environs cover 19,505 English acres. Paris is the *Lutetia* of the Romans, and is 210 miles S. E. from London. Pop. 1,825,274.—48, 50 N. 2, 20 E.

Pau (Po), a town in Bearn, capital of the department of Lower Pyrenees, beautifully situated on the Gave, the birthplace of Henry IV. of France. Pop. 24,563.

Perigueux, an ancient town in Guienne, capital of the department of Dordogne. Pop. 20,401.

Perpign'an (yang), a strong frontier-town in Roussillon, capital of the department of Eastern Pyrenees, on the Tet. Pop. 25,264.

Picardy, a province in the north.

Poitiers, an ancient city of Poitou, capital of the department of Vienne; memorable for the victory of Edward the Black Prince over the French king, in 1356. Pop. 31,034.—46, 35 N. 0, 20 E.

Poitou, a maritime province in the west of France.

Pons, St, a town in Languedoc, department of Hérault, on the Jaur, with large woollen manufactures. Pop. 6497.

Privas, a town in Languedoc, capital of the department of Ardèche, the centre of a great silk trade. Pop. 6657.

Provence (Provawngs'), a province bounded on the E. by Nice.

Puy, Le (Pwee), a town in Languedoc, capital of the department of Upper Loire, situated in a picturesque valley. Its cathedral is a noble building. Pop. 17,045.

Puy de Dôme (Pwee), a mountain in Auvergne, 4806 feet high.

Pyrenees, an extensive range of lofty mountains, the boundary between France and Spain. Mount Perdu is 10,994 feet high.

QUENTIN, St, a flourishing town in Picardy, department of Aisne, on the Somme. It has large cotton manufactures. The Canal of St Quentin, uniting the Schelde at Cambray with the Oise, passes through a tunnel, 8 miles in length, cut through solid rocks. Pop. 32,690.

Quiberon, a small town in Bretagne, department of Morbihan, at the extremity of the peninsula of Quiberon. Pop. 2086.

Quim'per, a town in Bretagne, capital of the department of Finistère, on the Odet. Pop. 11,488.

REIMS or Rheims, the ancient *Durocororum*, a city of Champagne, department of Marne, on the Vesle. It is the ecclesiastical capital of France. The cathedral is one of the finest examples of Gothic architecture in Europe. P. 60,734.—49, 15 N. 4, 2 E.

Rennes, a city of Bretagne, capital of the department of Ille and Vilaine. Its public library contains several rare books and MSS. Pop. 49,231.—48, 7 N. 1, 40 W.

Ré or Ré, an island on the W. coast, opposite La Rochelle. Pop. 16,618.—46, 12 N. 1, 20 W.

Rhône, a large and rapid river which rises in Switzerland, 5 miles from the source of the Rhine, and expands into the Lake of Geneva; issuing from which it forms the boundary between Savoy and Burgundy, and Dauphiny and Burgundy. From Lyons, its course is southerly, and after passing Vienne, Valence, and Avignon, it enters the Mediterranean by four mouths.

Riom', a town in Auvergne, department of Puy de Dôme, situated amid lofty mountains and fine scenery. Its manufactures are considerable. Pop. 10,863.

Roanne, a handsome town in Lyonnais, department of Loire. P. 17,398.

Rochefort (Rosh'fort), a strong seaport in Aunis, department of Lower Charente; it is a naval station, with a large arsenal and dockyards. Pop. 30,151.—45, 56 N. 0, 57 W.

Rochelle, La (Roshel'), a strong seaport in Aunis, capital of the department of Lower Charente, on a small gulf; its trade is considerable. Pop. 18,904.—46, 9 N. 1, 9 W.

Rocroi', a strong town in Champagne, department of Ardennes, where the French, under the Prince of Condé, gained a signal victory over the Spaniards in 1643. Pop. 3202.

Rodéz, a town in Guienne, capital of the department of Aveyron, with a fine cathedral. Pop. 11,856.

Romans', a fortified town in Dauphiny, department of Drôme, on the Isère; it commands a magnificent view of the valley eastward to Mount Blanc. Pop. 11,257.

Roubaix', a town in French Flanders, department of Nord, a chief seat of the French woollen manufacture. Pop. 65,091.

Rouen (Roo'awng), the ancient *Rotomagus*, an important commercial and manufacturing city in Normandy, capital of the department of Lower Seine: its ancient cathedral is a noble edifice. P. 100,671.—49, 28 N. 1, 6 E.

Rousillon' (yong) a small province in the S., now forming the department of Eastern Pyrenees. Pop. 189,490.

SAINTES (Sengt), the *Mediolanum* and *Santonis* of the Romans, a town in Saintonge, department of Lower Charente, containing several Roman remains. Pop. 10,962.

Saintonge (Sengtonzh'), a province in the W., now forming the department of Lower Charente.

Salins', a town in Franche-Comté, department of Jura, noted for its salt-works. Pop. 7361.

Sam'bre, a river which rises in Picardy, and joins the Meuse at Namur, in Belgium.

Soone, a large river, which has its source in the Vosges Mountains, and falls into the Rhone at Lyons.

Saumur (Somure') a town in Anjou, department of Maine and Loire, famous as a stronghold of the Protestants in the 16th and 17th centuries. Pop. 14,079.

Savoy, the ancient *Sabaudia*, a mountainous district, on the western slopes of the Alps, which divide it from Italy. It was an independent county from 1027 till 1416, and a duchy from 1416 till 1720, when its dukes became kings of Sardinia. It was annexed to France from 1792 till 1815, forming the department of Mount Blanc, and part of the department of Lemman. Restored to Sardinia in 1815, it was ceded by that country to France in 1860. P. 545,431. It has been divided into two departments, viz., Savoy (pop. 271,663) and Upper Savoy (pop. 273,768).

Schelde or Escant, a large river which rises in Picardy, and entering Belgium falls into the North Sea below Antwerp.

Schelestadt', a strong town in Alsace, department of Lower Rhine, on the Ill. Pop. 8968.

Sedan', a strong frontier-town in Champagne, department of Ardennes, on the Meuse, the birthplace of Marshal Turenne. It is celebrated for its manufacture of fine woollen cloths.

and of fire-arms. Pop. 15,536.—49, 42 N. 4, 57 E.

Seine (Sane), a large river which rises in the mountains of Burgundy; receiving in its course numerous tributaries, it flows through the capital, passes Rouen, and falls into the English Channel at Havre.

Sens (Sans), a town in Champagne, department of Yonne, with a fine cathedral. Pop. 11,098.

Servan, St., a seaport in the department of Ille and Vilaine, on the Rance, opposite St Malo; it has an active trade. Pop. 12,709.

Sèvre, two rivers in Poitou; the one flows into the Loire at Nantes; the other, after receiving the Vendée, falls into the Bay of Biscay.

Sèvres, a town S.W. of Paris, celebrated for its manufacture of porcelain, long considered the most beautiful in Europe. Pop. 6328.

Soissons (Swasong'), an ancient city in the Isle of France, department of Aisne, in a charming valley; it was the capital of Clovis, the founder of the French monarchy. Pop. 10,208.

Somme, a river of Picardy, which passes Amiens, and falls into the English Channel below Abbeville.

Strasbourg, a flourishing and strongly fortified city in Alsace, capital of the department of Lower Rhine, situated on the Ill, near its junction with the Rhine. The cathedral is a noble Gothic edifice, with a spire rising to the height of 474 feet. Pop. 84,167.—48, 35 N. 7, 45 E.

TARAS'CON, a strong town of Provence, department of Mouths of the Rhone, opposite Beaucaire, to which it is joined by a suspension bridge. Pop. 13,489.

Tarbes, a town in Gascony, capital of the department of Upper Pyrenees, situated on the Adour. Pop. 14,768.

Tarn, a river which rises in the Cevennes, runs through Montauban, and falls into the Garonne.

Thi'ers, a town in Auvergne, department of Puy de Dôme, long famed for its manufactures of hardware, cutlery, and paper. Pop. 15,901.

Thionville', a fortified town in Lorraine, department of Moselle. P. 7818.

Toul, a fortified town in Lorraine, department of Meurthe, on the Moselle. Pop. 7687.

Toulon', the *Telo Martius* of the Romans, a strong seaport in Provence, department of Var, the chief naval station of France on the Mediter-

anean, with extensive arsenal. P. 77,126.—43, 7 N.

Toulouse', the *Tolosa* of the Romans, a city in Languedoc, the department of Upper Garonne, at the junction of the Garonne and the Canal of Languedoc. It has considerable trade, and is the seat of a university. P. 126,936.—43, 31 N.

Touraine', a rich inland department, traversed by the Loire.

Turcoing', a flourishing manufacturing town in French Flanders, department of Nord. Pop. 12,709.

Tours, the *Cesarodunum* of the Romans, a city in Touraine, the department of Indre-et-Loire, pleasantly situated on the banks of the Loire, which there is an elegant bridge of 15 arches. P. 42,450.—47, 21 N.

Trou'ville, a beautiful and healthy watering-place, and a refuge for the Imperial marines, department of Calvados. Pop. 12,410.

Troyes (Tro'aw), the *Tricasses* of the ancients, a city in Champagne, capital of the department of Aube, situated on the Seine, in a fertile plain. Pop. 35,678.—48, 11 N.

Tulle (Teul), a town in France, capital of the department of Lot. Pop. 12,410.

USHANT' (*Fr.* Ouessant), an island off the W. coast of France. Pop. 2391.—48, 28 N. 5, 3 E.

VALENCE (Val'awng'), an ancient city in Dauphiné, capital of the department of Drôme, situated on the Rhone. Pop. 24,344.—50, 21 N. 3, 31 E.

Valenciennes', a very strong town in French Flanders, department of Nord, with fine manufactures of gauze, and cambric. It is the birthplace of Froissart the historian. Pop. 24,344.—50, 21 N. 3, 31 E.

Vannes, a seaport in Brittany, capital of the department of Morbihan. Pop. 14,564.

Vaucluse', a village in France, department of Vaucluse, the residence of the poet Petrarch. It is famous for a fountain of mineral water which rises in a vast cavern and forms a small stream, and falls into the Rhone.

Vendée (Vawng'dee), a department in Poitou, falling into the Atlantic.

Vendée, a department in France, province of Poitou, celebrated for a heroic stand in favour of the Republic, 1792-95. Pop. 40,000.

Vendôme', a town in France, department of Loir and Cher.

**Verdun'**, a fortified town in Lorraine, department of Meuse, where the English residents were detained prisoners of war in 1803. P. 12,394.

**Versailles'**, a town 12 miles S. W. of Paris, capital of the department of Seine and Oise, with a beautiful palace, gardens, and fountains. Pop. 44,021.

**Vesoul'**, a town in Franche-Comté, capital of the department of Upper Saône. Pop. 7579.

**Vienne'**, the *Vienna* of the Romans, a city in Dauphiny, department of Isère, on the Rhone, containing several Roman remains. Pop. 24,807.

**Vienne'**, a river which rises in the mountains of Auvergne, and falls into the Loire above Saumur.

**Vilaine'**, a river of Bretagne, flows through Rennes, and falls into the Bay of Biscay.

**Villefranche'**, a stirring town in Guienne, department of Aveyron, with a great trade. Pop. 10,172.—Another town of the same name, important for its manufactures in Lyonnais, department of Rhone, near the Saône. Pop. 11,650.

**Vi'tré**, a town in Bretagne, department of Ille and Vilaine, with manufactures of linens. Pop. 8904.

**Vosges (Vozh)**, a chain of mountains in the E. of France. The highest peak is 4690 feet.

**WISS'EMBOURG**, a strong frontier town in Alsace, department of Lower Rhine. Pop. 5376.

**YONNE**, a river which rises on the borders of Burgundy, and, flowing N. W., falls into the Seine.

**Yv'etot**, a manufacturing town in Normandy, department of Lower Seine. Pop. 8921.

## SPAIN

Is bounded N. by the Bay of Biscay, and the Pyrenees, which separate it from France; W. by Portugal and the Atlantic Ocean; S. by the Straits of Gibraltar and the Mediterranean; E. by the Mediterranean. It contains 182,758 square miles. Its population in 1864 was 16,302,625.

**DIVISIONS.**—Spain was formerly divided into 13 provinces, or into 17, if account be taken of the subdivisions of Andalusia into Andalusia and Granada, and of the Basque Provinces into Guipuzcoa, Biscay, Alava, and Navarre. Since 1833 the country has been divided into 47 provinces, or, including the islands, into 49, as shown in the following table:—

Old Provinces.	Modern Provinces.	Chief Towns.
New Castile .....	Madrid .....	MADRID.
	Toledo.....	Toledo, Talavera.
	Guadalaxara....	Guadalaxara.
	Cuença.....	Cuença.
La Mancha.....	Ciudad Real ....	Ciudad Real, Almaden.
Old Castile.....	Burgos.....	Burgos.
	Logrono .....	Logrono.
	Santander .....	Santander.
	Soria.....	Soria.
	Segovia.....	Segovia.
	Avila.....	Avila.
	Palencia .....	Palencia.
	Valladolid .....	Valladolid.



Old Provinces.	Modern Provinces.	Chief Towns.
Leon .....	{ Leon.....Leon, Astorga. Zamora.....Zamora. Salamanca.....Salamanca, Ciudad Rodrigo.	
Asturias .....	{ Oviedo.....Oviedo, Gijon. Corunna.....Corunna, Santiago, Ferrol.	
Galicia .....	{ Lugo.....Lugo. Orense.....Orense. Pontevedra.....Pontevedra, Vigo.	
Estremadura .....	{ Badajoz.....Badajoz. Caceres.....Caceres, Truxillo. Seville.....Seville, Ecija. Cadiz.....Cadiz, Xeres. Huelva.....Huelva.	
Andalusia .....	{ Cordova.....Cordova. Jaen.....Jaen. Granada.....Granada. Almeria.....Almeria. Malaga.....Malaga.	
Murcia.....	{ Murcia.....Murcia, Lorca, Cartagena. Albacete.....Albacete.	
Valencia.....	{ Valencia.....Valencia, Murviedro. Alicant.....Alicant.	
	{ Castellon de la Plana.....Castellon de la Plana.	
Aragon.....	{ Saragossa.....Saragossa. Huesca.....Huesca. Teruel.....Teruel.	
Catalonia .....	{ Barcelona.....Barcelona, Vich. Tarragona.....Tarragona, Tortosa, Reus. Lerida.....Lerida.	
	{ Gerona.....Gerona, Olot, Figueras.	
Basque Provinces	{ Navarre.....Pampeluna, Tudela. Biscay.....Bilboa or Bilbao. Guipuzcoa.....Tolosa, San Sebastian.	
	{ Alava.....Vittoria.	
Islands .....	{ Balearic.....Palma, Port Mahon. Canaries.....Santa Cruz	

**ISLANDS.**—Majorca, Minorca, Iviça, Formentera; Canaries.

**CAVES.**—Ortegal, Finisterre, Trafalgar, Europa Point, De Gata, Palos, St Martin, Creus.

**MOUNTAINS.**—Pyrenees, Mountains of Asturias, of Castile, and of Toledo, Sierra Morena, Sierra Nevada, Montserrat.

**RIVERS.**—Minho, Douro, Tagus, Guadiana, Guadalquivir, Ebro, Xucar, Segura.

**FOREIGN POSSESSIONS.**—Cuba, Porto Rico, and adjacent isles in the West Indies; settlements in the Philippine and Ladron Islands, in the Indian Archipelago; Annabon Island, Africa.

## REMARKS.

Spain extends from  $36^{\circ} 0'$  to  $43^{\circ} 47'$  N. lat., and from  $9^{\circ} 20'$  W. to  $3^{\circ} 20'$  E. long., being 650 miles in length from E. to W., and 520 miles in breadth from N. to S.

Spain and Portugal form the ancient *Iberian Peninsula*. The lofty Pyrenees, separating Spain from France, and forming its north-eastern boundary, are continued through the northern provinces, where they receive the name of the Cantabrian chain, running parallel to the Bay of Biscay, and terminating in Cape Finisterre. A secondary range, called the Iberian, stretches southward from the Pyrenees, in a long irregular line, to Cape de Gata in Granada. From the Iberian range, four other chains extend from east to west till they reach the Atlantic; these are the Mountains of Castile, the Mountains of Toledo, the Sierra Morena, and the Sierra Nevada. Through each of the extensive plains enclosed by these mountain-ranges, flows a large river which receives the smaller streams that issue from the heights parallel to its course. The central region of Spain, comprising part of Old and New Castile, is an elevated table-land. Madrid is 2200 feet, and San Ildefonso 3800 feet above the sea, being the most elevated royal residence in Europe.

In the valleys and low grounds, the heat, during summer, is excessive; and the level districts of Andalusia, Murcia, and part of Valencia, are visited by a scorching wind from Africa, called the *solano*, similar in its effects to the sirocco of Italy and Greece. On the elevated grounds the temperature is cooler; and the interior is subject to piercing winds, which prevent the ripening of many fruits that thrive in the more northern latitudes of Italy.

The soil is in general fertile, especially where irrigation can be used. Besides wheat, maize, rice, hemp and flax, oats and barley,—olives, figs, vines, oranges, and lemons are found in great abundance, and the sugar-cane is cultivated to some extent in Valencia and Granada. The vales on the eastern coast are remarkable for their fertility and perpetual succession of crops. For the Spanish wines, particularly those of Xeres, called Sherry, there is an extensive demand abroad.

Agriculture in many parts is in a great measure neglected for the rearing of vast flocks of merino sheep, the wool of which is particularly valuable. The horses, especially those of Andalusia, have long been famous; the mules are likewise

superior to those of other countries. The bulls are remarkable for their fierceness; and bull-fights are the favourite amusements of the Spaniards. Wolves are the principal beasts of prey.

The minerals are of great value. The iron-works of Aragon, Asturias, and particularly Biscay, have long been famous. Copper, tin, lead, and quicksilver are among the other mineral products.

Manufactures and commerce have lately begun to revive. The silks and cottons of Catalonia and Valencia, leather and mats, baskets and shoes, are the principal manufactures.

Roman-catholicism is the established religion, but freedom of public worship has been recently allowed.

The government was long nearly absolute; but, in 1820, a revolution broke out, and a constitutional government was established. This has been repeatedly subverted and restored; the country has undergone many vicissitudes, the latest of which was in 1868, when Queen Isabella II. was dethroned by a revolution, and the control of affairs intrusted to a provisional government. The Inquisition, which long reigned here in all its terrors, was finally abolished in 1820.

The Spaniards are grave, stately, and formal in their manners; indolence may be considered as their national vice; but it is happily unaccompanied by intemperance. Spain once reckoned 24 universities. There are now about half that number; and of these few are numerously attended. Some very respectable names adorn its literary annals. That of Cervantes, the author of *Don Quixote*, stands pre-eminent.

#### EXERCISES.

What are the boundaries of Spain? What is its extent? What is its population? Name its provinces. What are the principal towns in Galicia, in Asturias, in Biscay, in Navarre, etc.? Where are Cartagena, Seville, Barcelona, Badajoz, Valladolid, Talavera, San Sebastian, Saragossa, Cadiz, etc.?

Name the islands. Name the capes. Name the mountains, and trace their direction. Name the rivers, and trace their course. Where is Europa Point, Montserrat, Minorca, the Tagus, the Ebro, Cape de Gata, the Guadalquivir, the Douro, etc.?

Where does the Douro rise, and in what direction does it flow? What cape forms the southern extremity of the Rock of Gibraltar? What mountains separate New Castile from Andalusia? What are the colonies of Spain?

Between what degrees of latitude and longitude is Spain situated? What are its length and breadth? What was its ancient name? Describe the branch of the Pyrenees called the Cantabrian chain. What mountain-ranges stretch westward from the Iberian chain to the Atlantic? What is remarkable about the central part of Spain?

What varieties of climate occur in Spain? What is the nature of

its soil? What are its productions? For what are the vales on the eastern coast remarkable? From what cause is agriculture much neglected in many parts? For what domestic animals is Spain famous? What is the favourite amusement of the Spaniards?

In what state are its commerce and manufactures? What are its principal manufactures? Name its chief iron-works.

What is the established religion? When was Queen Isabella II. dethroned? At what period was the Inquisition abolished?

What qualities characterize the national manners? What is the national vice of the Spaniards?

What is about the present number of the Spanish universities? Can Spain boast of any eminent men of letters?

#### DESCRIPTIVE TABLE.

**ALBACETE'**, the capital of a province of the same name. Pop. 11,000.

**Alcala'de Hena'res**, a town in the province of Madrid, with a university; here Cervantes was born in 1547. Pop. 6400.

**Alcan'tara**, the *Norba Casarea* of the Romans, a fortified town in the province of Caceres, on the S. bank of the Tagus, with the ruins of Trajan's bridge, partly destroyed by the British in 1809. It gives name to a Spanish order of knighthood. Pop. 4273.

**Alcoy'**, an inland town in the province of Alicant. Pop. 27,000.

**Algesi'ras**, a town on the west side of the Bay of Gibraltar. Pop. 11,080.—36° 8' N. lat. 5° 26' W. long.

**Al'icant**, a seaport, the capital of a province of the same name, in Valencia, with a great export-trade in barilla, wine, and fruits. Pop. 31,162.—38, 21 N. 0, 29 W.

**Alma'den**, a town in the province of Ciudad Real, famed for its rich mines of quicksilver. Pop. 8645.

**Alma'gro**, a town in the province of Ciudad Real, situated in a fertile plain, noted for its mules. Pop. 12,605.

**Alman'za**, a town in the province of Albacete. Pop. 8736.

**Alme'ria**, a flourishing town and seaport, the capital of a province of the same name in Andalusia. Pop. 17,800.—36, 51 N. 2, 31 W.

**Andalu'sia**, a large and important province in the south, watered by the Guadalquivir. Pop. 3,116,255.

**Andor'ra**, the capital of a little republic of the same name, on the southern side of the Pyrenees, adjoining the Spanish province of Lerida, and the French department of Ariège. Pop. 2900.—The territory of the republic, which has a population of about 10,000, stretches about

36 miles from N. to S., and about 30 from E. to W.; it is nominally under the protection of France and the Spanish Bishop of Urgel. The inhabitants are chiefly occupied in agriculture and mining.—42, 20 N. 1, 27 E.

**Andu'jar**, a fine old town in the province of Jaen, on the Guadalquivir, with numerous churches, and a bridge of fifteen arches. Pop. 9353.—38, 2 N. 3, 59 W.

**Anteque'ra**, a town in the province of Malaga, containing several ancient remains. Pop. 27,201.

**Ar'agon**, a mountainous but fertile province in the north-east, intersected by the Ebro. Pop. 921,305.

**Aranjuez'**, a town on the Tagus, with a fine palace and gardens. Pop. 3639.

**Astu'rias**, a province in the N., on the Bay of Biscay. Pop. 571,335.

**A'vila**, on the Adaja, with a university, the capital of a province of the same name in Old Castile. P. 5000.

**BADAJOS'** (or Bad'ahoz), a strong town, the capital of a province of the same name in Estremadura, beautifully situated on the Guadiana. It was stormed by the English, under Wellington, in 1812. Pop. 22,895.—38, 52 N. 6, 48 W.

**Balea'ric Islands**, a group in the Mediterranean, off the coast of Valencia, viz. Majorca, Minorca, Iviça, and Formentera. Pop. 278,660.

**Barcelo'na**, a strong seaport on the Mediterranean, the capital of a province of the same name in Catalonia, and the first commercial city of Spain. Pop. 189,948.—41, 22 N. 2, 10 E.

**Basque Provinces**, a mountainous region in the north, inhabited by a peculiar and brave race. P. 759,310.

**Bidasso'a**, a river of Navarre, the boundary between France and Spain;

it rises in the Pyrenees, and falls into the Bay of Biscay.

Bil'boa (or Bilba'o), the capital of the province of Biscay, on the Nervion (a navigable river), about ten miles from the sea; its commerce is extensive, particularly in wool. P. 15,000.

Bur'gos, the capital of a province of the same name in Old Castile, on the Arlanzon, formerly the residence of the kings of Castile. Pop. 25,721.

CACE'RES, the capital of a province of the same name in Estremadura, with elegant public buildings. Pop. 12,051.

Cad'iz (the *Gades* of the Romans), the capital of a province of the same name in Andalusia, situated on the Isle of Leon; it is strongly fortified, and its harbour is one of the best in Europe. P. 71,521.—36, 32 N. 6, 18 W.

Canary Islands. See Descriptive Table of AFRICA.

Cardo'na, a fortified town of Catalonia, on the Cardenet; near it is a mountain of solid rock-salt, of the purest quality, which has been largely quarried from the earliest times. Pop. 2366.

Cartage'na, the *Cartha'go Nova* of the Romans, a strong seaport in Murcia, with a noble harbour. Pop. 22,106.—37, 36 N. 1, 2 W.

Castel'on de la Pla'na, the capital of a province of the same name in Valencia. Pop. 16,952.

Castile', Old and New, two old provinces in the centre of the kingdom, consisting of extensive plains intersected by mountains. On the former are fed great flocks of merino sheep. Pop. of Old Castile, 1,681,297; of New Castile, 1,275,544.

Catalo'nia, a large and fertile though mountainous province in the N. E., bordering on the Mediterranean. Pop. 1,731,798.

Chinchil'la, a town in the province of Albacete. Pop. 12,609.

Ciu'dad Re'al, the capital of the province of La Mancha, near the Guadiana. Pop. 8300.

Ciu'dad Rodri'go, a strongly fortified town in the province of Salamanca. Pop. 4852. Here the English, under Wellington, gained a victory over the French in 1812.

Cor'dova, or Cor'doba, the capital of a province of the same name in Andalusia, formerly the capital of a Moorish kingdom; it contains a remarkable mosque. Pop. 41,963.—52, 0 N. 4, 46 W.

Corun'na, a seaport, the capital of a province of the same name in Galicia, with considerable trade. Here Sir John Moore fell, after repulsing the French under Marshal Soult, in 1809. Pop. 19,415.—43, 22 N. 8, 22 W.

Creus, Cape, the extreme N.E. point of Catalonia.—42, 19 N. 8, 20 E.

Cuen'ca, the capital of a province of the same name in New Castile. Pop. 6037.

DOURO (Doo'ro), a large river which has its source on the borders of Aragon, traverses Old Castile and Leon, and, after passing through the N. of Portugal, falls into the Atlantic at Oporto.

E'BRO, a large river which rises on the borders of Leon, and, flowing with a south-easterly course through Old Castile, Aragon, and Catalonia, falls into the Mediterranean below Tortosa.

E'cija, an ancient town in the province of Seville, on the Genil, in a district rich in corn and olives. Pop. 23,508.

Elche, a thriving town in Valencia, near Alicant. Pop. 18,068.

Estel'la, a town in Navarre, on the Ega, with a castle; it is the seat of a university. Pop. 5750.

Estremadu'ra, a pastoral province watered by the Tagus and Guadiana. Pop. 715,899.

Euro'pa Point, in Andalusia, the southern extremity of the Rock of Gibraltar.—36, 6 N. 5, 22 W.

PELIPE', San, or Xativa, a town in Valencia, with silk and cotton manufactures. Pop. 13,235.

Fernan'do, San, a strong town of Andalusia, on the Isle of Leon, near Cadiz, with an observatory and naval academy. Pop. 9729.

Ferrol', a seaport in the province of Corunna, on an arm of the Bay of Betanzos, an important naval station, with an excellent harbour strongly fortified. P. 16,641.—43, 29 N. 8, 13 W.

Figu'eras, a strong fortress in the province of Gerona in Catalonia. Pop. 8352.

Finisterre', Cape, the north-western extremity of Spain, on the coast of Galicia.—42, 54 N. 9, 20 W.

Fontara'bia, a fortified frontier-town in Guipuzcoa, at the mouth of the Bidassoa. Pop. 2035.

Formente'ra, a small island in the Mediterranean, south of Iviça. Pop. 2000.

GALI'CIA, a mountainous prov-

in the N. W., interspersed with fertile and picturesque valleys. Pop. 1,880,522.

GA'TA, Cape de, the S. E. point of Granada.—36, 48 N. 2, 8 W.

GERO'NA, the capital of a province of the same name in Catalonia, on the Ter, with a fine cathedral. Pop. 8175.

GIBRAL'TAR, a celebrated fortress, deemed impregnable, in the S. of Andalusia, seated on a rock, the *Mons Calpe* of the ancients, on the E. side of a spacious bay. Since 1704 it has been in possession of the British, having sustained a memorable siege against the combined forces of Spain and France, from 1779 to 1782. Pop. 15,426.—36, 7 N. 5, 21 W.

GRAN'ADA, a province in Andalusia, with fruitful plains, intersected by the Sierra Nevada, or Snowy Mountains. Pop. 468,128.

GRAN'ADA, the capital of the above province; it was the residence of the ancient Moorish kings, whose palace, called the Alhambra, is the most splendid monument of Arabic architecture existing. Pop. 67,328.—37, 19 N. 3, 50 W.

GUADALAV'AR, a river which has its source in Aragon, and flows into the Mediterranean below Valencia.

GUADALAXA'RA, the capital of a province of the same name in New Castile, N. E. of Madrid, with a royal manufactory of woollen cloth. P. 5170.

GUADALQUIV'IR, a large river which rises between the Sierra Morena and the Sierra Nevada, waters the plains of Andalusia, and, flowing by Seville, falls into the Atlantic.

GUADIA'NA, a river which rises in La Mancha, flows through New Castile, Estremadura, and Alentejo, separates Andalusia from Algarve, and falls into the Atlantic.

HUES'CA, the capital of a province of the same name in Aragon, with a fine cathedral. Pop. 9200.

ILDEFON'SO, San, a town in Old Castile, with a celebrated royal palace, and a glass manufactory carried on by the government. P. 3897.

IV'IÇA, an island in the Mediterranean, about 60 miles from the coast of Valencia; its chief trade is in salt, which is produced by evaporation. Pop. 11,000.

IV'IÇA, a fortified seaport, the chief town of the island of the same name,

with a good harbour. Pop. 5970.—39, 0 N. 1, 30 E.

JA'EN, a considerable town, the capital of a province of the same name in Andalusia, situated in a fertile valley. Pop. 18,054.—37, 48 N. 3, 48 W.

LE'ON, a province in the N. W., on the borders of Portugal, bounded by ranges of mountains. P. 878,194.

Le'on, an ancient city, the capital of the above province, with a noble cathedral. Pop. 5720.

Ler'ida, the ancient *Nerdd*, a fortified town, the capital of a province of the same name in Catalonia, beautifully situated on the Segre. Pop. 16,634.—41, 40 N. 0, 30 E.

Logro'no, the capital of a province of the same name in Old Castile, on a fine plain near the Ebro. Pop. 10,466.

Lo'ja, a town of Granada, with manufactures of calico and paper. Pop. 15,968.

Lor'ca, a handsome town in Murcia, on the Sangonera, with considerable manufactures. Pop. 48,224.

Lu'car, San, a seaport in the province of Cadiz, at the mouth of the Guadalquivir, with a good trade and flourishing manufactures. P. 16,816.—36, 48 N. 6, 18 W.

Lu'go, the capital of a province of the same name in Galicia, on the Minho, celebrated for its hot medicinal springs. Pop. 7269.—43, 0 N. 7, 36 W.

MADRID', the capital of Spain, stands nearly in the centre of the kingdom, on an elevated plain 2200 feet above the level of the sea. The Manzanares, a small stream, flows past it, and falls into the Tagus. It is a handsome city; the royal palaces and some of the public buildings are stately edifices. Here the two great dramatic poets of Spain were born, Lope de Vega in 1562, Calderon in 1601. Pop. 298,426.—40, 25 N. 3, 42 W.

Mahon', Port, a strong seaport in the island of Minorca, with a fine harbour. Pop. 13,102.—39, 52 N. 4, 21 E.

Major'ca, the largest of the Balearic Islands, in the Mediterranean; its valleys are very fertile, producing corn, grapes, oranges, and citrons. The highest mountain is 5114 feet above the sea. Pop. 43,000.—39, 35 N. 3, 0 E.

**Maladet'ta**, the highest peak of the Pyrenees in Spain, 11,168 feet above the sea.

**Mal'aga**, a commercial city and seaport, the capital of a province of the same name in Andalusia, with an excellent harbour; noted for its fruits and sweet wines. Pop. 94,732.—36, 43 N. 4, 25 W.

**Manc'ha, La**, a pastoral province, the scene of Don Quixote's adventures. Pop. 256,905.

**Manre'sa**, a town in the province of Barcelona, on the Cardenet, with manufactures of silk. Pop. 13,339.

**Manzana'res**, a town in the province of Ciudad Real, on a branch of the Guadiana. Pop. 9760.

**Marbel'la**, a seaport of Granada, with a fine harbour. Pop. 5850.—36, 31 N. 4, 53 W.

**Mar'tin**, Cape St, the S. E. point of Valencia, opposite the island of Iviçà.—38, 47 N. 0, 10 E.

**Mat'aro**, a seaport in the province of Barcelona, with thriving manufactures. Pop. 13,010.

**Mer'ida**, the ancient *Emerita Augusta*, a town in Estremadura, on the Guadiana, containing some remarkable remains of Roman grandeur. In the neighbouring town of Medel-lin, Cortez, the conqueror of Mexico, was born in 1485. Pop. 4112.

**Min'ho**, a river which rises near Mondoneda, in the N. of Galicia, and, separating that province from Portugal, falls into the Atlantic.

**Minor'ca**, the second in size of the Balearic Islands, in the Mediterranean, 24 miles E. of Majorca. Mount Toro, near the centre of the island, is 4790 feet high. Pop. 14,000.—40, 0 N. 4, 10 E.

**Mondone'do**, an episcopal town in the province of Lugo, with linen manufactures. Pop. 6194.

**Montserrat'**, a lofty, insulated mountain in Catalonia, remarkable for its hermitages and convent of Benedictines.

**Motril'**, a thriving town of Granada, surrounded by sugar-plantations. Pop. 12,850.

**Mur'cia**, a province in the S. E., between Andalusia and Valencia. Pop. 621,728.

**Mur'cia**, the capital of the province of the same name, beautifully situated on the Segura. Pop. 87,803.—38, 0 N. 1, 13 W.

**Murvie'dro**, a fortified town in

Valencia, on the site of the ancient *Saguntum*. Pop. 7476.

**NAVARRE'**, a small province, formerly a kingdom, bounded on the N. by the Pyrenees. Pop. 310,944.

**OLIVEN'ZA**, a strong town in the province of Badajoz, near the Guadiana. Pop. 10,000.

**O'lot**, a town in the province of Gerona, in the valley of the Fluvió, with a considerable transit trade. Pop. 12,070.

**Orense'**, the capital of a province of the same name in Galicia, on the Minho, celebrated for its hot springs. Pop. 5022.

**Orihue'la**, a commercial town in the province of Alicant, on the Segura, in a fertile plain. Pop. 18,932.

**Or'tegal**, Cape, the most northerly point of Galicia, and also of Spain.—43, 47 N. 7, 56 W.

**Osu'na**, a town in the province of Seville, in a fine valley. Pop. 17,556.

**Ovie'do**, the capital of the province of the same name in Asturias, and the seat of a university; it has a fine cathedral. Pop. 12,583.

**PALEN'CIA**, an ancient town, the capital of a province of the same name in Old Castile, on the Carrion. Pop. 11,470.

**Pal'ma**, a seaport, the capital of Majorca, situated on a large bay. Pop. 53,019.—39, 34 N. 2, 44 E.

**Pa'los**, Cape, a promontory in the E. of Murcia.—37, 37 N. 0, 42 W.—A town in the province of Huelva, at the mouth of the Tinto, from which Columbus sailed in 1492, for the discovery of the New World.

**Pampelu'na**, or **Pamplo'na**, a strong fortress, the capital of Navarre, on the Arga. Its castle, garrisoned by the French, was reduced by the British in October 1813. Pop. 80,000.—42, 50 N. 1, 41 W.

**Ponteve'dra**, the capital of a province of the same name in Galicia, at the head of a bay, with a good harbour. Pop. 4549.

**Porto-Santa-Mari'a**, a town in the province of Cadiz, near the mouth of the Guadalete. Pop. 18,000.

Pyrenees. See FRANCE, p. 118.

**RE'US**, a flourishing manufacturing town in the province of Tarragona in Catalonia. Pop. 28,171.—41, 11 N. 1, 10 E.

**Ron'da**, a town in the province of Malaga, situated on the summit of a precipitous rock, near the Guadiaro,

which is here crossed by a stupendous bridge 250 feet high. Pop. 16,000.

**SALAMAN'CA**, the capital of a province of the same name in Leon, on the Tormes, the seat of a celebrated university. Here the French were signally defeated by the British under Wellington in 1812. Pop. 15,000.—41, 5 N. 5, 42 W.

**Santander**, the capital of a province of the same name in Old Castile. Pop. 20,000.—43, 28 N. 3, 47 W.

**Santis'go de Compostel'la**, a city, is the province of Corunna, formerly the capital of Galicia, with a celebrated cathedral, containing what are supposed to be the remains of St James the Apostle, from whom the town has its name. It has a university, and is the chief seat of the Knights of St James. Pop. 26,538.—42, 50 N. 8, 27 W.

**Saragosa** (*Sp.* Zaragoza), the ancient *Caesara Augusta*, the capital of a province of the same name in Aragon, on the Ebro, remarkable for the heroic resistance of its inhabitants, under Palafox, against the French in 1808-9. Pop. 67,428.—41, 47 N. 0, 49 W.

**Sebastian, San**, a seaport in Guipuzcoa, strongly fortified. It was wrested from the French by the British, on the 31st August 1813. Pop. 19,000.—43, 19 N. 2, 0 W.

**Sego'via**, the capital of a province of the same name in Old Castile, containing a Roman aqueduct, and other monuments of antiquity. Pop. 13,000.

**Segu'ra**, a river of Murcia, which traverses that province, and falls into the Mediterranean.

**Seville**, the ancient *Hispalis*, an important commercial city, the capital of the province of the same name in Andalusia, situated on the Guadalquivir, in a pleasant and fertile district. Its cathedral is a magnificent Gothic pile, with a tower 350 feet high. Here the two great Spanish painters were born, Velasquez in 1599, Murillo in 1608. Pop. 118,298.—37, 34 N. 5, 47 W.

**Sier'ra More'na**, or the Brown Mountains, between New Castile and Andalusia.

**Sier'ra Neva'da**, or the Snowy Mountains, in Granada. Mulhacen, their loftiest summit, is 11,678 feet high.

**Soria**, the capital of a province of the same name in Old Castile, on

the Douro, near the site of the ancient *Nemantia*. Pop. 3500.

**TA'GUS** (*Sp.* Tajo), the largest river of Spain; issuing from the mountains between Aragon and New Castile, it traverses the latter province and Estremadura, intersects Portugal, and falls into the Atlantic below Lisbon.

**Talave'ra**, a town in the province of Toledo in New Castile, on the Tagus. Here the French were defeated by the British in a series of sanguinary conflicts, on the 27th and 28th July 1809. Pop. 9255.—39, 56 N. 4, 47 W.

**Tar'ifa**, a seaport in the province of Cadiz, on the Straits of Gibraltar, the most southerly point of Spain, and of the continent of Europe. Pop. 5949.—36, 0 N. 5, 38 W.

**Tarrago'na**, the *Tar'raco* of the Romans, the capital of the province of the same name in Catalonia, containing many vestiges of ancient greatness. Pop. 18,023.—41, 8 N. 1, 16 E.

**Ter'uel**, the capital of a province of the same name in Aragon, on the Guadalaviar. Pop. 6752.—40, 26 N. 1, 5 W.

**Toledo**, a celebrated ancient city, the capital of the province of the same name in New Castile, situated on a lofty rock near the Tagus. Its Alcazar or palace, and its cathedral, once a mosque, are splendid structures. Toledo was long famous for the manufacture of sword-blades. Its archbishop is primate of Spain. Pop. 13,500.—39, 56 N. 4, 0 W.

**Tolo'sa**, a town in Guipuzcoa, on the Ordo, celebrated for its steel manufactures. Pop. 5000.

**Torto'sa**, a strong town in the province of Tarragona in Catalonia, near the mouth of the Ebro. Pop. 18,023.—40, 48 N. 0, 33 E.

**Trafalgar**, Cape, on the coast of Andalusia, between Cadiz and Gibraltar, memorable for the victory obtained by the British fleet under Lord Nelson over the combined fleets of France and Spain, on the 21st October 1805.—36, 9 N. 6, 1 W.

**Truxil'lo**, a town in the province of Caceres in Estremadura: here Pizarro, the conqueror of Peru, was born in 1475. Pop. 5200.

**UB'EDA**, a town in the province of Jaen, near the Guadalquivir. Pop. 16,000.



**Valen'cia**, a maritime province in the E.; its valley, considered the garden of Spain, is covered with vines and olives. Pop. 1,842,155.

**Valen'cia**, a maritime city, the capital of the above province, near the mouth of the Guadalaviar: it is the seat of a university, and has a cathedral with some fine paintings. Pop. 107,708.—39, 29 N. 0, 24 W.

**Valladolid'**, the capital of a province of the same name in Old Castile, on the Pisuerga, a tributary of the Douro; it is the seat of a university. Pop. 43,861.—41, 39 N. 4, 42 W.

**Ve'lez-Mal'aga**, a town in the province of Malaga, situated in a fertile district, near the mouth of the small river Velez, with some trade in oil, sugar, and wine. Pop. 12,523.

**Vich**, a town in the province of Barcelona, with considerable manufactures; there are copper and coal mines in the neighbourhood. Pop. 13,712.

**Vi'go**, a strong seaport in the province of Pontevedra in Galicia, with an excellent harbour. Pop. 8214.—42, 14 N. 8, 44 W.

**Vil'la-Re'al**, a town of Valencia, on the Mejares, here crossed by a fine bridge of thirteen arches. Pop. 4500.

**Vito'ria**, the capital of the province of Alava, in the Basque Provinces, the scene of a great victory by Wellington over the French in 1813. Pop. 16,569.—42, 51 N. 2, 43 W.

**XERES**(Je'res), a flourishing town in the province of Cadiz, near the Guadalete, N. E. of Cadiz; its vineyards produce the wine called *Sherry*. Pop. 38,898.—36, 41 N. 6, 7 W.—Another town of the same name in Estremadura, near the Ardila. Pop. 8296.

**Xucar** (Ju'car), a river which rises in New Castile, crosses Valencia, and falls into the Mediterranean.

**Zamo'ra**, the capital of a province of the same name in Leon, on the Douro. Pop. 9926.

## PORTUGAL

Is bounded N. and E. by Spain; S. and W. by the Atlantic. It contains 36,500 square miles. The population in 1863 was 3,986,558.

Provinces.	Chief Towns.
Entre Douro e Minho.....	Oporto, Braga, Viana.
Tras-os-Montes.....	Braganza, Miranda, Villa Real.
Beira .....	Coimbra, Almeida, Ovar.
Estremadura.....	LISBON, Setubal, Santarem.
Alentejo .....	Evora, Elvas.
Algarve.....	Faro, Lagos, Tavira.

**ISLANDS.**—The Azores,—the principal being St Michael, Terceira, Pico, Fayal.

**CAPES.**—Roca or Rock of Lisbon, Espichel, St Vincent, St Maria.

**MOUNTAINS.**—Sierra de Estrella.

**RIVERS.**—Minho, Douro, Mondego, Tagus, Guadiana, Sado.

**FOREIGN POSSESSIONS.**—*In Africa*, Congo, Angola, Benguela; Sofala, Mozambique; Madeira, the Cape Verde Islands. *In Asia*, Goa, Damaun, Diu, in Hindostan; Macao, near Canton; settlements at Timor, in the Indian Ocean.

## REMARKS.

Portugal lies between  $36^{\circ} 56'$  and  $42^{\circ} 10'$  N. lat., and between  $6^{\circ} 14'$  and  $9^{\circ} 30'$  W. long. Its extreme length is 350 miles; its greatest breadth, 140 miles.

Traversed by several mountain-ranges extending into Spain, and by others peculiar to itself, Portugal in its general aspect bears a considerable resemblance to the former country. Its soil is light, and highly favourable to the cultivation of the grape and other fine fruits. In the high grounds are raised the usual crops of more northern latitudes; vines and maize grow in warmer and less elevated tracts; and rice in the low grounds. The cork-tree, the orange, lemon, and olive trees, are frequent, as well as the finest fruits of the south of Europe. The climate is delightful, especially on the coast and in the high grounds. In the valleys, the heat during summer is excessive.

The mineral treasures of this country, like those of Spain, have been neglected since the discovery of the richer mines of America. Manufactures and agriculture are still in a state of backwardness, and internal commerce suffers from the want of good roads. The sea along the coasts and the rivers abounds with fish, which is a great article of food with all classes. Wine is the chief production of the country, and is exported in large quantities, principally to Britain. The other exports are oil, fruits, salt, and cork. In return for these, Great Britain, to which the commerce of Portugal is almost wholly confined, sends woollens, linen, cotton, hardware, and other articles.

The Roman-catholic faith is the prevailing religion, but all other forms are tolerated. The numerous monasteries and nunneries were abolished in 1834, and the revenues applied to national purposes.

The government till 1820 was an absolute monarchy; a limited monarchy was then introduced, and supported by the influence of Britain; but the people seemed in general attached to their ancient system of government, which was for a short period re-established. At length, in 1836, the young Queen Donna Maria II. declared her acceptance of the constitution of 1820, by which, with considerable changes effected by the cortes or representative assembly in 1852, the country is now governed under her second son Luis I.

The manners of the Portuguese in the northern and southern provinces are almost as different as if they were distinct nations. *In the north, they are industrious and blunt; in the south, polite,*

but indolent. A want of regard to cleanliness is general. The ladies still ply the distaff in spinning, and in many places retain the oriental fashion of sitting upon cushions on the floor.

Public education is now under the sole direction of the government, and upwards of 1800 primary schools have been established. There is one university, that of Coimbra, and numerous lyceums.

Camoens, author of an epic poem called the *Lusiad*, is the brightest star of Portuguese literature.

#### EXERCISES.

What are the boundaries of Portugal? What is its extent in square miles? What population does it contain? Into what provinces is it divided? What are its principal towns? Name its islands, capes, mountains, rivers, foreign possessions.

Where are Evora, Oporto, Miranda, Braganza, Lisbon? etc. Where are Cape Espichel, Cape St Vincent, the Sado, Montego? etc.

Between what degrees of latitude and longitude is Portugal situated? What are its length and breadth? What country does it resemble in its general aspect? What is the nature of its soil? What crops are raised in its different regions? What fruit-trees are common? What kind of climate does it enjoy? Is much attention paid to its mineral treasures? In what state are agriculture, manufactures, and commerce? What is the chief production and export of Portugal? What are its other exports? What articles does Great Britain send in return?

What is the established religion of the Portuguese? What was, till lately, the form of government? How did the people receive a representative constitution? Are the manners of all the Portuguese alike? What are their several peculiarities? What defect is general among them? What is the occupation of the ladies? What fashion is still retained in many places?

In what state is education in Portugal? How many universities has it? What author is the brightest ornament of Portuguese literature?

#### DESCRIPTIVE TABLE.

**ABRANTES**, a fortified town in Estremadura, on the Tagus, the passage of which it commands. Pop. 5000.

**Alente'jo**, a large province S. of the Tagus. Pop. 348,173.

**Algarve'**, a province in the south of the kingdom. Pop. 179,157.

**Alma'da**, a town in Estremadura, on the Tagus, opposite Lisbon. In its neighbourhood is the gold-mine of Adissa. Pop. 5500.

**Almei'da**, a fortress in Beira, on the N. E. frontier. Pop. 6850.

**Avei'ro** a seaport of Beira, on the estuary of the Vouga, with considerable trade and fisheries. Pop. 5000.—40° 38' N. lat. 8° 38' W. long.

**Azores'**, a group of nine islands in the North Atlantic, about 800 miles from Portugal, to which they belong. St Michael is the largest, although Terceira is the residence of the governor. The Azores are exceedingly fertile, producing wines, oranges, and lemons, but are subject to violent earthquakes. Pop. 251,894. An'gra is the capital of Terceira and of the

whole group of the Azores. Pop. 11,839.

BEI'RA, a province N. of Estremadura and Alentejo, divided into Upper and Lower. Pop. 1,287,172.

Be'ja, a town in Alentejo, with some ancient remains. Pop. 5500.

Be'lem, a town with a strong castle, 4 miles W. of Lisbon. Pop. 5000.

Bra'ga, an ancient city of Entre Douro e Minho, in a fertile valley; it is the see of an archbishop, who is primate of the kingdom. Pop. 19,613.—41, 33 N. 8, 22 W.

Bragan'za, an ancient town in Tras-os-Montes. From John, duke of Braganza, who was raised to the throne in 1640, the present royal family is descended. Pop. 5000.

CASTEL'LO-BRAN'CO, a strong town in Beira. Pop. 6000.

Chav'es, a frontier town in the N. of Tras-os-Montes, on the Tamega, much frequented for its mineral waters. Pop. 3900.

Cin'tra, a town in Estremadura, beautifully situated. It is noted for the convention between the British and French generals in 1808. Pop. 2562.

Coim'bra, the capital of Beira, situated on the Mondego. It has considerable commerce, and is the seat of the principal university in Portugal. Pop. 17,768.—40, 12 N. 8, 25 W.

Covil'ha, a town of Beira, at the foot of the Sierra de Estrella, with cloth manufactures. Pop. 5000.

DOURO. See SPAIN, p. 126.

EL'VAS, a frontier town in Alentejo, one of the most important strongholds in the kingdom. Pop. 10,809.—38, 52 N. 6, 57 W.

Entre Dou'ro e Min'ho, a province in the N., situated, as the name imports, between the rivers Douro and Minho. Pop. 949,240.

Es'pichel, Cape, a promontory on the coast of Estremadura, with a lighthouse 660 feet above the level of the sea.—38, 25 N. 9, 13 W.

Estrel'la, Sierra de, a range of mountains in Beira, 7524 feet high.

Estremadu'ra, an important maritime province in the W. Pop. 836,555.

Estre'moz, a fortified town of Alentejo, in a fertile district. P. 6600.

Ev'ora, the capital of Alentejo, with several ancient remains. It is the see of an archbishop, and the seat of a university. Pop. 11,837.

FA'RO, a seaport in Algarve, on the coast. Pop. 8440.—36, 59 N. 7, 51 W.

Figuei'ra, a fortified town in Beira, at the mouth of the Mondego. Pop. 6000.

GAVIAR'A, the highest mountain in Portugal, in the N. of Entre Douro e Minho, 7881 feet above the sea.

Guadia'na. See SPAIN, p. 127.

Guima'raens, an ancient but well-built town in Entre Douro e Minho, in a beautiful plain; it is surrounded by fortifications. Pop. 6000.

LA'GOS, a fortified seaport of Algarve, with an excellent harbour. Pop. 6800.—37, 7 N. 8, 40 W.

Lam'ego, a town in Beira, near the Douro. Pop. 9000.

Lei'ria, a small town of Estremadura, with eighteen churches, a cathedral, and three convents. P. 2500.

LISBON (*Port.* Lisboa), the capital of the kingdom, in Estremadura. It is beautifully situated near the mouth of the Tagus, on several hills, presenting from the bay a noble appearance. A great part of it was destroyed by an earthquake in 1755. Here the poet Camoens was born about 1520. Pop. 223,064.—38, 42 N. 9, 8 W.

MADEIRA, including Porto Santo and Desertas, belonging to, and 660 miles S.W. of, Portugal. P. 111,764. See AFRICA.

Ma'ra, a town in Estremadura, with a convent and royal palace now falling into decay. Pop. 3250.

Miran'da, a frontier town in Tras-os-Montes, on the Douro. P. 4840.

Monde'go, a river which rises in the Sierra de Estrella, and flows through Beira into the Atlantic.

OPOR'TO (*O Porto*, "the Port"), the ancient *Calle*, a seaport, the second city in the kingdom, in Entre Douro e Minho; it is finely situated on the Douro, about 2 miles from its mouth. It is noted for a strong red wine, which has received from it the name of *Port*. Pop. 89,194.—41, 9 N. 8, 37 W.

Ourique', a town in Alentejo, where Alfonso I. signally defeated the Moors in 1139. Pop. 2500.

Ov'ar, a thriving town in Beira, on the coast. Pop. 10,374.

PENICHE', a strong seaport in Estremadura, on a promontory. P. 2600.

Pombal', a town in Estremadura, on the Sour. Pop. 5000.

Portale'gre, a town in Alentejo,

with manufactures of cloth. Pop. 5800.

RO'CA, Cape, or the Rock of Lisbon, the extreme western point of Estremadura, and of the continent of Europe.—38, 46 N. 9, 30 W.

SA'DO, a river which rises in the S. of Alentejo, and falls into the Bay of Setubal.

San'tarem, an ancient town in Estremadura, on the Tagus. Pop. 8000.

Setubal' or St Ubes, a seaport in Estremadura, at the mouth of the Sado; it has a great trade in salt and fruits. Pop. 13,159.—38, 29 N. 8, 58 W.

TA'GUS, See SPAIN, p. 129.

Tavi'ra, a fortified seaport in Algarve. Pop. 10,908.

Tho'mar, a town in Estremadura, with considerable cotton manufactures. Pop. 3800.

Tor'es-Ve'dras, a town in Estre-

madura, the centre of the celebrated military lines formed by the British under Wellington in 1810. Pop. 2300.

Tras-os-Mon'tes, a province in the N. E., separated from Spain by the Douro. Pop. 385,901.

VIA'NA, a seaport in Entre Douro e Minho, at the mouth of the Lima. P. 204,679.—41, 42 N. 8, 43 W.

Vil'la Re'al, a thriving town in Tras-os-Montes. Pop. 4500.

Vimiel'ro, a town of Estremadura, celebrated for the victory gained by Wellington over Junot, on the 21st August 1808.

Vin'cent, Cape St, a promontory on the S.W. coast of Algarve, famous for the victory gained over the Spanish fleet on the 14th February 1797, by the British under Sir John Jervis, afterwards Earl St Vincent.—37, 3 N. 8, 59 W.

Vise'u, a town in Beira, with a great annual fair. Pop. 9160.

## SWITZERLAND

Is bounded N. by Germany; W. by France; S. by France and Italy; E. by Italy and Austria. It contains 15,260 square miles. The population in 1860 was 2,510,494.

DIVISIONS.—Switzerland formerly comprised thirteen cantons; but since the year 1815, it has been divided into twenty-two,\* viz. :—

Cantons.	Chief Towns.	Cantons.	Chief Towns.
Schaffhausen.....	Schaffhausen.	Glarus.....	Glarus.
Thurgau.....	Frauenfeld.	Uri.....	Altorf.
Zurich.....	Zurich.	Unterwalden..	Stanz, Sarnen.
Aargau.....	Aarau.	Freyburg.....	Freyburg.
Basle.....	Basle.	Neuchâtel.....	Neuchâtel.
Soleure.....	Soleure.	Vaud.....	Lausanne, Vevay.
Berne.....	BERNE, Thun.	Geneva.....	Geneva.
Lucerne.....	Lucerne.	Valais.....	Sion.
Zug.....	Zug.	Tessin.....	Bellinzona, Lugano, Locarno.
Schweitz.....	Schweitz.	Grisons.....	Coire, Ilanz, Davos.
St Gall.....	St Gall.		
Appenzell.....	Appenzell, Herisau, Trogen.		

\* Three of the cantons are subdivided, viz. Basle or Bâle, into Bâle-Ville and Bâle-Campagne; Appenzell, into Outer Rhodes and Inner Rhodes; Unterwalden, into Oberwald or Obwalden, and Unterwalden or Nidwalden. If these subdivisions be taken into account, the number of cantons is 25.

**MOUNTAINS.**—Pennine Alps, embracing Mount Rosa, Mount Cervin or Matterhorn, Simplon, and Great St Bernard; Helvetian or Lepontine Alps, including St Gothard; Rhætian Alps; Bernese Alps, the culminating points of which are the Finster-Aarhorn, Monk, Jungfrau, and Schreckhorn; Mount Jura.

**LAKES.**—Geneva, Brienz, Thun, Neuchâtel, Bienne, Lucerne, Zug, Zurich, Wallenstadt, Constance.

**RIVERS.**—Rhine, Rhone, Aar, Reuss, Limmat, Ticino, Inn.

**REMARKS.**

Switzerland is situated between 45° 50' and 47° 50' N. lat., and between 6° and 10° 30' E. long. Its length, from Mount Jura to the Tyrol, is 200 miles; its breadth, from Como to the Rhine at Schaffhausen, 130 miles.

Switzerland, the ancient *Helvetia*, is the highest and most mountainous country in Europe. The Alps form not only its southern and eastern frontiers, but penetrate the chief part of its interior. These mountains, towering in some instances to the stupendous height of 15,000 feet, present innumerable scenes of sublimity as well as of beauty. In many respects Switzerland is one of the most interesting countries which the traveller can visit or the philosopher contemplate. Here nature wears every variety of aspect, from the most awful grandeur to the most enchanting sweetness. The perpetual snow, the glaciers or ice-fields of the higher Alps, the avalanches or masses of snow, falling like mountains loosened from their foundations, the bold craggy precipice, the dashing cataract, and the roaring torrent, form a rude but striking contrast to the peaceful scenes below—the varied woodland, the vineyard and the corn-field, the verdant plain, with its smiling cottages and crystal streams. The lakes of Switzerland are a grand and interesting feature in the landscape; and some of the noblest rivers in Europe issue from the mountains, and wind along the vales.

The soil is as various as the surface is diversified. But industry triumphs over every difficulty; and the traveller sees, with wonder, rocks clothed with vineyards, where herbage could scarcely be expected to grow, and grounds, which appear inaccessible except to the ibex or goat, subdued by the plough. Besides the common kinds of grain, Switzerland produces abundance of fruits. It is on their cattle, however, that the Swiss chiefly depend.

Almost every variety of temperature is known in Switzerland, from the cold of Lapland or Iceland to the excessive heat of Italy or Spain.

Among the animals that frequent the Alps may be mentioned the ibex or rock-goat; the chamois, a species of antelope; and the marmot, which is often found in a torpid state during winter.

Metals are less abundant than might be expected in so mountainous a country. The chief mines are those of iron; but silver, copper, and lead, are also to be found.

The principal manufacture is linen; that of cotton has lately been successfully introduced in the northern cantons; and woollens and silks are likewise fabricated. Watchmaking is carried on extensively in the districts of Neuchâtel and Geneva. Switzerland has no seacoast, but trade is prosecuted to some extent with Germany and the Netherlands, by means of the Aar, the Reuss, and the Rhine, with France by means of the Rhone, and with Italy over the St Gothard.

Since the Swiss, instigated by the brave and patriotic Tell, threw off the Austrian yoke in 1315, their government has been a federal republic. Each canton is regulated by its own laws and magistrates, but all are mutually bound to assist and protect each other. In case of foreign aggression, each canton is bound to furnish a certain number of soldiers. An army of 80,000 men can thus be raised almost instantaneously; although the whole revenue of the republic amounts only to about £800,000 a-year.

In nine of the cantons, the Roman-catholic religion is established; in seven, the Protestant. In the remaining six, both forms of religion exist together; but, of the whole population of Switzerland, not much less than two-thirds are Protestants.

Simplicity, frugality, honesty, bravery, and a strong attachment to home, are the characteristic qualities of this interesting people. In the Protestant cantons the advantages of education are as generally diffused as in Scotland. Switzerland has produced many men of distinguished eminence in literature and science, such as Zuinglius the reformer, Causabon, Gessner, Haller, Rousseau, Neckar, Lavater, Lesage, Sismondi, etc.

#### EXERCISES.

What are the boundaries of Switzerland? What is its extent in square miles? What population does it contain? Into how

many cantons is it divided? Name them. What are the principal towns? Name the mountains; the lakes; the rivers. Where is Frauenfeld, Stanz, Lugano, Altorf, Coire? etc. Where does the Rhine rise? Trace its course. Where is Lake Brienz? Where are Mount St Gothard, Great St Bernard, Schreckhorn, Jungfrau, Mount Jura, Lake of Constance, Lake Wallenstadt? etc.

Between what degrees of latitude and longitude is Switzerland situated? What is its length and breadth? What is its general appearance? What part of it is occupied by the Alps? What character do these mountains give to the landscape? Mention some of the most interesting features in the scenery of Switzerland.

What is the nature of the soil? With what effects of cultivation is the traveller astonished? What are the products of Switzerland? On what part of their rural wealth do the Swiss chiefly depend? What varieties of climate are experienced in Switzerland? Mention some of the remarkable animals that frequent the Alps.

Does Switzerland abound in metals? What are its principal manufactures? With what countries and by what rivers does Switzerland carry on trade?

What is the form of government in Switzerland? How is an army raised in case of foreign aggression? What force can thus be brought almost instantaneously into the field? What is the religion of Switzerland? What are the characteristic qualities of the Swiss? In what state is education among them? Mention some of the men of science and letters whom Switzerland has produced.

#### DESCRIPTIVE TABLE.

A'AR, a river which, rising in Berne, and flowing through the lakes of Brienz and Thun, joins the Rhine.	is subdivided into two cantons, of which Bâle-Ville has a pop. of 40,683, and Bâle-Campagne a pop. of 51,582.
Aarau', the capital of Aargau, on the Aar. Pop. 5094.	Basle, the capital of the canton, on the Rhine, a place of great trade, and the seat of a university. Pop. 37,918.
Aargau' or Argo'via, a canton in the N. which derives its name from the Aar. Pop. 194,208.	—47° 33' N. lat. 7° 35' E. long.
Alps, a stupendous range of mountains, three principal chains of which are the Rhætian Alps, in the Grisons, the Helvetian Alps and the Pennine Alps in the Valais.	Bellinzo'na, a town in the canton of Tessin, which, alternately with Locarno and Lugano, becomes the seat of government of the canton for six years together. Pop. 2196.
Al'torf, the capital of Uri, situated on the Reuss, famous for the heroic resistance of William Tell to the tyrant Geisler in 1307, which laid the foundation of the independence of Switzerland. Pop. 2428.	Ber'nard, Great St, one of the Alps, in the south of the Valais, towering to the height of 11,116 feet.
Appen'zell, a canton in the N. E. Pop. 60,431.	Berne or Bern, a large canton in the interior. Pop. 467,141.
Appen'zell, the capital of the canton, situated on the Sitter, a tributary of the Rhine. Pop. 3277.	BERNE, the capital of the above canton and the chief town of Switzerland, on the Aar. It is the seat of a university. Since 1848, it has been the federal town, or seat of the government of the whole Swiss confederation. Here Haller, the eminent scholar, poet, and man of science, was born. Pop. 29,016.—46, 57 N. 7, 26 E.
BASLE, Bâle, or Ba'sel, a frontier canton in the N.W. Pop. 92,265. It	



**Blenne', Lake of, in Berne.**

**Brien'z', Lake of, in Berne, surrounded by lofty mountains.**

**CERVIN (Mount) or Matterhorn, a peak of the Pennine Alps, 40 miles E. N. E. of Mount Blanc.**

**Coire or Chur, the capital of the Grisons, near the Rhine. Pop. 6990.**

**Con'stance, Lake of, or Bodensee', in the N. E., between Switzerland and Germany.**

**FRAU'ENFELD, the capital of Thurgau, situated on a branch of the Thur. Pop. 1784.**

**Freyburg, a canton W. of Berne. Pop. 105,523.**

**Freyburg or Fri'bourg, the capital of the canton, romantically situated on the Saane. Pop. 10,454.**

**GALL, St, a canton S. of the Lake of Constance. Pop. 180,411.**

**Gall, St, the capital of the canton, in a pleasant valley, with extensive manufactures. It takes its name from an Irish missionary, who founded a monastery here in the seventh century. Pop. 14,532.**

**Gene'va, a small canton in the S. W. Pop. 82,876.**

**Gene'va, the capital of the canton, finely situated at the point where the Rhone issues from the lake. In its moral character it has been one of the most important cities in Europe. It was here that Calvin resided while he laboured in establishing the Reformation. It is the birthplace of many eminent men, and the seat of a Protestant university. Pop. 41,415.—46, 12 N. 6, 9 E.**

**Gene'va or Lem'an, Lake of, the largest in Switzerland, traversed by the Rhone. Its scenery is beautiful.**

**Gla'rus, a small canton in the interior. Pop. 83,363.**

**Gla'rus, the capital of the above canton, a thriving manufacturing town, on the Linth. Pop. 4797.**

**Goth'ard, Mount St, between Uri and Tessin. The Furca peak is 14,037 feet high; the height of the pass is 6890 feet.**

**Grisons', a large canton in the S. E., traversed by the valley of the Engadin. Pop. 90,713.**

**HERISAU', a manufacturing town in Appenzell. Pop. 9518.**

**INN, a tributary of the Danube, which rises in the Grisons, and flows by a N. E. course through the Tyrol.**

**JUNGFRAU', one of the Alps, in the canton of Berne, rising to the height of 13,720 feet.**

**Jura, Mount. See FRANCE, p. 116.**

**LAUSANNE', the capital of the canton of Vaud, about a mile N. from the Lake of Geneva. The beauty of its situation has made it the resort of numerous strangers. Here Gibbon wrote the greater part of his History of the Decline and Fall of the Roman Empire. Pop. 20,515.**

**Lau'terbrunn, a remarkable valley in Berne, where the glaciers appear in great magnificence.**

**Lim'mat, a river which rises in Glarus, passes through the Lake of Zurich, and falls into the Aar, near its junction with the Reuss.**

**Locar'no, a town in the canton of Tessin, beautifully situated on Lake Maggiore. Pop. 2834.**

**Lucerne', a canton in the interior. Pop. 130,504.**

**Lucerne', the capital of the canton, situated on an arm of the lake, where the Reuss issues from it. Pop. 11,522.**

**Lucerne', Lake of, a beautiful and romantic lake, surrounded by the four forest cantons, Schweitz, Uri, Unterwalden, and Lucerne.**

**Luga'no, a town in the canton of Tessin. Pop. 5397.**

**MOR'AT, a town in Freyburg, where Charles the Bold, Duke of Burgundy, was signally defeated by the Swiss in 1476. Pop. 2266.**

**NEUCHÂTEL', a canton in the W., bordering on the lake of the same name, which separates it from the canton of Freyburg; until 1857, it was nominally subject to the King of Prussia. Pop. 87,369.**

**Neuchâtel', the capital of the canton, beautifully situated on the lake, and commanding grand and extensive views. Pop. 10,328.**

**OL'TEN, a town in the canton of Soleure, on the Aar. Pop. 1500.**

**REUSS, a large river which issues from a lake in Mount St Gothard, flows through Uri, the Lake of Lucerne, and Aargau, and joins the Aar.**

**Rhine. See GERMANY, p. 193.**

**Rhone. See FRANCE, p. 119.**

**Ro'sa, Mount, the highest mountain on the borders of Switzerland, being 15,208 feet above the sea.**

**SAR'NEN, a town in Unterwalden, on the Lake of Sarnen. Pop. 3801.**

**Schaffhau'sen, the most northerly canton. Pop. 35,500.**

**Schaffhau'sen, the capital of the canton, a place of considerable trade. The fall of the Rhine here is one of**

the greatest cataracts in Europe. Pop. 8637.

Schreck'horn, one of the Alps, in the canton of Berne, rising to the height of 13,492 feet, remarkable for its glaciers.

Schweitz, a pastoral canton on the E. of the Lake of Lucerne. Here the Swiss confederacy was first formed in 1307, and the canton has given its name to the whole country. P. 45,039.

Schweitz, the capital of the above canton, situated amid beautiful scenery. Pop. 5742.

Sim'plon, one of the Alps, over which Napoleon I. constructed a famous military road into Italy. The pass which leads from the Valais to Milan is 6592 feet above the sea.

Sion (Secon) or Sit'ten, the chief town of the Valais, situated on the Rhone. Pop. 4203.

Soleure' or Sol'othurn, a canton in the N. W. Pop. 69,263.

Soleure', the capital of the canton, on the Aar. Pop. 5916.

Splu'gen, one of the Alps, across which is a pass, 6946 feet high, leading from the Grisons to Chiavenna and the Lake of Como.

Stanz, the capital of Unterwalden, Pop. 2028.

TES'SIN or Tic'no, a canton in the S., deriving its name from the river Ticino, which flows through it into Lake Maggiore. Pop. 116,343.

Thun (Toon), a lake in the canton of Berne, united with the Lake of Brienz by the Aar.

Thun (Toon), a town in Berne, on the Lake of Thun, where the Aar issues from it. Pop. 8699.

Thurgau' or Thurgo'via, a canton in the N. E., on the Lake of Constance. Pop. 90,080.

Tro'gen, a thriving town in the canton of Appenzell. Pop. 2611.

UNTERWAL'DEN and U'RI, two of the Forest Cantons, on the Lake of Lucerne. Pop. 39,643.

VALAIS (Valay'), a canton containing the picturesque valley through which the Rhone flows, Pop. 90,792.

Vaud (Vo), a fine canton on the N. of the Lake of Geneva. Pop. 213,157.

Vevay', a beautiful town in the canton of Vaud, on the Lake of Geneva. Pop. 6494.

WAL'LENSTADT, a lake between St Gall and Glarus, connected with the Lake of Zurich by the Linth Canal.

YV'ERDUN, a town in the canton of Vaud, at the S. extremity of the Lake of Neuchâtel. Pop. 4094.

ZUG, a small canton in the interior. Pop. 19,608.

Zug, the capital of the canton, on the Lake of Zug. Pop. 3854.

Zu'rich, a canton in the N., with a lake of the same name. Pop. 266,265.

Zu'rich, the capital of the above canton, on the Limmat, where it issues from the lake. It is the seat of a university. Here the reformer Zuinglius lived from 1518 to 1531. Pop. 19,758.—47, 22 N. 8, 32 E.

## ITALY

Is bounded N. by the Alps, which separate it from Austria and Switzerland; W. by France and the Mediterranean; S. by the Mediterranean; E. by the Adriatic. It contains 114,445 square miles. The population is about 25,000,000.

States.

Provinces.

Chief Towns.

### 1. Kingdom of Italy:

Piedmont & Genoa	Turin.....	Turin, Chieri.
	Genoa.....	Genoa, Savona.
	Alessandria.....	Alessandria, Asti.
	Novara.....	Novara.
	Cuneo.....	Cuneo.
Sardinia.....	Porto Maurizio.....	Porto Maurizio.
	Cagliari .....	Cagliari.
	Sassari.....	Sassari.

States.	Provinces.	Chief Towns.
1. Kingdom of Italy—(continued):		
Lombardy.....	Milan .....	Milan.
	Brescia .....	Brescia.
	Cremona .....	Cremona.
	Pavia .....	Pavia.
	Bergamo .....	Bergamo.
	Como .....	Como.
	Sondrio .....	Sondrio.
	Bologna .....	Bologna.
	Parma .....	Parma.
	Piacenza .....	Piacenza.
Emilia (Parma, Modena, etc.)...	Modena .....	Modena.
	Ferrara .....	Ferrara.
	Reggio .....	Reggio.
	Ravenna .....	Ravenna.
	Forlì .....	Forlì.
	Massa and Carrara .....	Massa, Carrara.
	Florence .....	Florence.
Tuscany & Lucca.	Leghorn or Livorno .....	Leghorn.
	Pisa .....	Pisa.
	Lucca .....	Lucca.
	Sienna .....	Sienna.
	Arezzo .....	Arezzo.
	Grosseto .....	Grosseto.
	Ancona .....	Ancona.
Umbria and the Marches.....	Perugia .....	Perugia.
	Ascoli .....	Ascoli.
	Pesara and Urbino .....	Pesaro, Urbino.
	Macerata .....	Macerata.
	Naples .....	Naples.
	Bari .....	Bari.
	Foggia .....	Foggia.
Naples.....	Salerno .....	Salerno.
	Teramo .....	Teramo.
	Lecce .....	Lecce.
	Benevento .....	Benevento.
	Catanzaro .....	Catanzaro.
	Potenza .....	Potenza.
	Reggio .....	Reggio.
	Avellino .....	Avellino.
	Campobasso .....	Campobasso.
	Chieti .....	Chieti.
	Aquila .....	Aquila.
	Cosenza .....	Cosenza.
	Caserta .....	Caserta.
	Palermo .....	Palermo.
	Catania .....	Catania.
Sicily.....	Messina .....	Messina.
	Trapani .....	Trapani.
	Caltanissetta .....	Caltanissetta.
	Siragusa or Syracuse .....	Siragusa or Syracuse.
	Girgenti .....	Girgenti.

States.	Provinces.	Chief Towns.
1. Kingdom of Italy—(continued) :		
	Venice.....	Venice.
	Verona.....	Verona.
	Padua.....	Padua.
	Vicenza.....	Vicenza.
Venetia.....	Mantua.....	Mantua.
	Udine.....	Udine.
	Treviso.....	Treviso.
	Belluno.....	Belluno.
	Rovigo.....	Rovigo.
	Rome.....	ROME.
	Viterbo.....	Viterbo.
2. Papal States.....	Valletri.....	Velletri.
	Civita Vecchia.....	Civita Vecchia.
	Frosinone.....	Frosinone.
3. San Marino.....		San Marino.

**ISLANDS.**—Sardinia, Sicily, Lipari Islands, Capri, Ischia, Elba ; Malta and Gozo belong to Britain, Corsica to France.

**STRAITS.**—Bonifacio, Messina, Otranto.

**GULFS.**—Genoa, Gaeta, Naples, Salerno, Policastro, St Eufemia, Squillace, Taranto, Manfredonia, Venice, Trieste.

**CAPIES.**—Spartivento, Colonne, Leuca, Passaro.

**MOUNTAINS.**—Part of the Alps, including Little St Bernard and Mount Cenis, the Apennines, Mount Vesuvius, Mount Etna.

**LAKES.**—Maggiore, Lugano, Como, Iseo, Garda, Perugia, Bolsena, Celano.

**RIVERS.**—Po, Adige, Ticino, Fiumicino, Arno, Tiber, Volturno.

#### REMARKS.

Italy, including Sicily, extends from 36° 40' to 46° 40' N. lat., and from 6° 40' to 18° 30' E. long. Its greatest length, from Mount Blanc to Cape Leuca, is 750 miles ; its extreme breadth, from the head of the Adriatic to the borders of Savoy, is 370 miles ; but its average breadth does not exceed 140 miles.

Italy has a very diversified surface, being traversed in its whole length by the Apennine chain, some of whose peaks in Naples are nearly 10,000 feet high. It has the rich and fertile plains of Lombardy and Piedmont, and the fine valleys of the Arno and other rivers. It thus presents in its extensive range, from Mount Cenis to Cape Leuca, every variety of beauty of which landscape is susceptible. The air in most districts is mild and genial. Some tracts, however, are unhealthy in the summer and autumnal months ; particularly that called the

Maremma, stretching from Leghorn to Terracina,—a distance of 200 miles. In the southern provinces, the heat during summer is excessive; and its effect is occasionally rendered peculiarly oppressive by a sultry wind, called the sirocco, which blows from the hot and arid regions of Africa.

From the eastern confines of France to Illyria, the soil is a deep alluvial mould; farther south, it becomes light. Corn, pulse, maize, rice, cotton, silk, olives, and several delicious fruits, are among the productions of this fertile country. The vine grows all over Italy, and the mountains afford summer pasture for the cattle.

Among the domestic animals of Italy, the horses and sheep of Naples are famous. The finest cheese in the world is made from the milk of the cows of Lombardy and Parma.

Although in such a mountainous country minerals may be supposed to abound, its mines are almost entirely neglected. Marble of singular beauty is found in the north, as well as in the neighbourhood of Florence and Sienna. Alabaster, jasper, and agate are met with in the Apennines.

Venice and Genoa once held the first rank among the commercial communities of Europe; but they have long been far outstripped by England and Holland; and even in Italy, Leghorn has now a greater trade than either, although since 1848 that of Genoa has nearly doubled. The commerce of both cities with the Levant is still considerable. The chief exports are wine, oil, fruits, and silk.

Italy has few manufactures in proportion to its extent and resources. Industry, however, has recently made and is still making considerable progress; better modes of agriculture have been adopted; manufactures are established in various districts; new roads and canals have been made and railways have been opened, particularly in the northern states; one line is over Mount Cenis. The principal towns are distinguished by superior architecture and elegance, and are increasing in population; while the maritime trade, especially of Genoa, Leghorn, Venice, and Naples, is thriving.

Italy has long been distinguished as the chief seat of the fine arts. Painting, music, and sculpture, have here been carried to great perfection. Architecture has been most successfully cultivated at Rome, Venice, and Florence. The remains of antiquity still afford exquisite models to the student of the fine arts, and interesting objects to the traveller and the scholar.

Imagination, taste, enthusiastic devotion to the fine arts,

vivacity, refinement, and courtesy to strangers, are the better qualities by which the Italians are in general characterized. Indolence is their prevailing vice; robbery and assassination are crimes by which they are too generally disgraced.

The state religion of Italy is Roman-catholic, the clergy of which are very numerous. In the provinces of the Kingdom, nearly all the monastic establishments have been suppressed, and their property applied to the purposes of the state, especially to the promotion of public elementary schools and other educational seminaries. There are in all thirteen Italian universities, which have produced many men famous in literature and science.

Napoleon I. united all Italy into one kingdom, but after his overthrow in 1815, it was subdivided into eight states: 1. The Kingdom of Sardinia, comprising the island of that name, Piedmont, Genoa, Nice, and Savoy. 2. The Kingdom of Lombardy and Venice, governed by the Emperor of Austria. 3. The States of the Church, under the sovereignty of the Pope. 4. The Kingdom of Naples and Sicily, otherwise called the Kingdom of the Two Sicilies, comprehending the island of Sicily and the southern extremity of Italy. 5. The Grand Duchy of Tuscany, including Tuscany Proper and the Duchy of Lucca. 6. The Duchy of Parma. 7. The Duchy of Modena. 8. The Republic of San Marino, the smallest state in Europe. This state of things continued for nearly half a century, when in 1859 war broke out between Austria on one side, and France and Sardinia on the other. Austria was defeated, and her supremacy in Italy being overthrown, Lombardy, Naples and Sicily, Tuscany, Lucca, Parma, Modena, and great part of the States of the Church, were incorporated with Sardinia, which, being thus enlarged, took the name of the Kingdom of Italy. The duchy of Savoy and the county of Nice were surrendered to France, and in 1866 Venetia was given up by Austria.

The Kingdom of Italy embraces a total area of 114,445 square miles, with a population of 24,263,320. For administrative purposes it is divided into 68 provinces, named after the principal towns. The government is vested in the sovereign, who, with his ministers, has the sole executive power; a senate of princes and nobles nominated by the king; and a chamber of deputies returned by the people.

The area of the Papal States, or States of the Church, is 4588 square miles, divided into five delegations or provinces; the population is 692,112. The Pope is the supreme ruler; but

the legislative and executive power is intrusted to a cabinet somewhat similar in its organization to other European governments. The people, however, have no voice in choosing those who have the control of public affairs.

San Marino is one of the smallest and most ancient states in Europe. It is a republic, dating from the fifteenth century, and is enclosed on all sides by the territories of the Kingdom of Italy. It is situated in lat.  $43^{\circ} 58' N.$ , long.  $12^{\circ} 21' 24'' E.$ , and has an area of about 24 square miles, with a population of 7080.

#### EXERCISES.

What are the boundaries of Italy? What is its extent in square miles? What is its population? Into how many provinces is the Kingdom of Italy divided? What are the chief towns of Piedmont and Genoa? Of Sardinia? Of Lombardy? Of Parma and Modena? Of Tuscany? Of Umbria and the Marches? Of Naples? Of Sicily? Of Venetia? Of the Papal States? Where are Rome, Padua, Turin, Leghorn, Palermo, Sienna, Savona, Catania, Pisa, Piacenza, Pavia, Cremona, Cagliari, Girgenti, Genoa? etc. What are the principal islands?

Name the straits of Italy? Name its gulfs. Name its capes. What are its principal mountains? What are its lakes? Name its rivers and trace their courses. Where are Mount Cenis, Cape Colonne, the Gulf of Gaeta, the Lake of Como, the Straits of Messina, the Gulf of Salerno, Lake Perugia, the Fiumicino, the Apennines, Mount Vesuvius, Cape Leuca? etc.

Between what degrees of latitude and longitude is Italy situated? What are its greatest length and breadth? What is its average breadth? What is its general appearance? Are all its districts equally healthy? In what tract is the air particularly unwholesome? By what is the heat occasionally rendered peculiarly oppressive in the southern provinces? What diversities of soil prevail in Italy? Enumerate some of the productions of this country. Which of the domestic animals of Italy are worthy of notice? Is Italy remarkable for its mineral wealth? Where are beautiful marbles found? What valuable stones are found in the Apennines?

Does Italy excel in manufactures? What are its principal articles of manufacture? What Italian communities once possessed great commercial importance? By what countries have they been long outstripped? What town in Italy now excels them? What branch of their trade is still considerable? What are the chief exports from Italy?

For what has Italy long been distinguished? Where has architecture been cultivated with particular success? What do the student of the fine arts, and the learned traveller, find particularly interesting in this country?

What are the better qualities by which the Italians are characterized? What is their prevailing vice? By what crimes are they too generally disgraced?

What is the state religion of the country? What has been done with the monastic establishments in the Kingdom of Italy?

How many universities are there? Name the States of Italy after the downfall of Napoleon I. in 1815. What changes with regard to these States took place after the overthrow of the supremacy of Austria in 1859 and 1866? Give the extent and population of the Kingdom of Italy. Of the Papal States. Of San Marino. What are the forms of government in these States?

## DESCRIPTIVE TABLE.

**Ad'lge**, a river which rises in the Tyrol, and falls into the Gulf of Venice, N. from the mouths of the Po.

**Adriatic Sea**, sometimes called the Gulf of Venice, a branch of the Mediterranean, separating Italy from Illyria, Dalmatia, and Albania. It is about 550 miles long, with an average breadth of 120 miles.

**Alessan'dria**, a strong city of Piedmont, capital of the province of the same name, on the Tanaro. Near it is the celebrated field of Marengo, where Napoleon Bonaparte defeated the Austrians in 1800. Pop. 27,027. —44° 56' N. lat. 8° 37' E. long.

**Alghero**, a seaport on the W. coast of Sardinia, province of Sassari. Pop. 8419.—40, 33 N. 8, 17 E.

**Altamura**, a well-built inland town of Naples, province of Bari, at the foot of the Apennines. Pop. 17,365.

**Amalfi**, a seaport of Naples, on the Gulf of Salerno, formerly the capital of an independent republic. Here the mariner's compass is said to have been invented by Gioia in 1802. P. 6506.

**Ancona**, a strong seaport, in the province of the same name, on the Adriatic, with a good harbour. Pop. 46,090.—43, 37 N. 13, 35 E.

**Aosta**, a town in Piedmont, province of Turin, on the Dora Baltea, an affluent of the Po, with numerous remains of Roman architecture. P. 7830.

**Apennines**, a chain of mountains extending from the Alps near Nice through Italy to 41° N. lat., where they divide into two branches, one traversing Calabria, the other Otranto; Mount Corno, their loftiest peak, is 10,206 feet high.

**Aquila**, a town of Naples, the capital of the province of that name, on the Pescara, near Mount Corno. P. 15,732.

**Arezzo**, the ancient *Arretium*, a city of Tuscany, capital of the province of the same name, near the Arno. Here Petrarch was born in 1804. Pop. 11,081.

**Arno**, a river of Tuscany, which

rises in the Apennines, and falls into the Mediterranean below Pisa.

**Ascoli**, capital of the province of the same name, on the Tronto, which is celebrated for the fertility of its valley. Pop. 17,448.

**As'ti**, an ancient city of Piedmont, province of Alessandria, on the Tanaro. Here the poet Alfieri was born in 1749. Pop. 30,757.

**Avellino** a town of Naples, capital of the province of the same name, in a fine valley, watered by the Sabato. Pop. 19,761.

**Aversa**, a town in the province of Naples, in a fertile plain. P. 18,248.

**BA'RI**, the ancient *Barium*, a fortified seaport of Naples, on the Adriatic, the capital of a province of the same name. Pop. 32,994.—41, 8 N. 16, 53 E.

**Barlet'ta**, a seaport of Naples, on the Adriatic, with a fine cathedral and considerable trade. Pop. 26,474. —41, 19 N. 16, 18 E.

**Bassano**, a town in the province of Venice, on the Brenta, with a great trade in raw silk. Pop. 12,344.

**Belluno**, a town of Venetia, on the Piave, capital of the province of the same name, with a handsome cathedral. Pop. 13,600.

**Benevento**, the ancient *Beneventum*, capital of the province of Benevento, 82 miles N. E. of Naples. It contains the celebrated Arch of Trajan and other Roman remains. Pop. 16,484.

**Bergamo**, a commercial city of Lombardy, the capital of a province of the same name, and the seat of a great annual fair. Pop. 24,566.—45, 42 N. 9, 40 E.

**Bitonto**, a town of Naples, province of Bari, near the Adriatic, with a fine cathedral. It is noted for its wine. Pop. 22,126.

**Bol'ca**, a mountain in the territory of Verona, rich in curious fossil remains. It is evidently an exhausted volcano.

**Bologna**, the ancient *Bononia*, capital of the province of the same name,



situated in a fertile plain at the base of the Apennines. It is the seat of a famous university, and has given birth to a great number of eminent men. P. 89,850.—44, 30 N. 11, 21 E.

Bolse'na, a lake in the Papal States, province of Viterbo, surrounded by finely wooded hills.

Bonifa'cio, Straits of, between Corsica and Sardinia; the narrowest part is about 10 miles wide.

Bren'ta, a river of Venetia, which rises in the Tyrol, near Trent, and falls into the Gulf of Venice.

Bres'cia, a city of Lombardy, capital of the province of Brescia. It contains a fine modern cathedral, and many remains of ancient grandeur. P. 40,499.—45, 32 N. 10, 13 E.

Brin'disi, the ancient *Brundisium*, a seaport in the S. E. of Naples, province of Lecce, on the Adriatic. It was the port at which the ancient Romans generally embarked for Greece. Pop. 9105.

CAGLIA'RI, a city of Sardinia, capital of the province of Cagliari, on a bay of the same name, on the S. shore of the island. It has a university, a fine cathedral, and considerable commerce. Pop. 28,244.—39, 13 N. 9, 7 E.

Cala'bria, a mountainous and fertile district in the southern part of Italy. It has suffered severely from earthquakes. Pop. 1,140,396.

Caltagi'rone, a town in Sicily, province of Catania, built on two hills joined together by a bridge. Pop. 22,015.

Campobas'so, a town of Naples, capital of the province of the same name, famed for its cutlery. P. 14,346.

Cap'ri, a picturesque little island at the mouth of the Bay of Naples. It was anciently called *Caprea*, and was the favourite retreat of the Emperors Augustus and Tiberius. Pop. 6000.

Cap'ua, a city of Naples, province of Caserta, on the left bank of the Volturno. Here Hannibal wintered after the battle of Cannæ. Pop. 14,238.

Carra'ra, a town of Modena, in the province of Massa-Carrara, famed for its marble. Pop. 8000.

Casa'le, a town in Piedmont, province of Alessandria, on the Po. Pop. 17,061.

Caser'ta, a town of Naples, capital of the province of Caserta, with a magnificent royal palace and gardens. Pop. 10,895.

Castellama're, a city in the province of Naples, on the site of the ancient *Stabia*. Pop. 14,932.—40, 41 N. 14, 29 E.

Cata'nia, an ancient city and seaport of Sicily, capital of the province of the same name, at the foot of Mount Etna, by the lava of which it has been three times destroyed. Pop. 64,921.—37, 28 N. 15, 5 E.

Catanza'ro, a town of Naples, capital of the province of Catanzaro, near the Gulf of Squillace. Pop. 17,136.

Ca'va, a town of Naples, province of Salerno. Pop. 19,488.

Cef'alu,\* a seaport on the N. coast of Sicily, province of Palermo. Pop. 11,183.—38, 0 N. 14, 4 E.

Cela'no or Fu'cino, the ancient *Fucinus*, a lake in the N. W. of Naples, province of Aquila.

Cen'is, Mount, one of the Graian Alps, 11,460 feet high, across which a line of railway has been formed for traffic between France and Italy.

Chie'ti, a town of Naples, capital of the province of the same name, on a ridge of hills, near the Pescara. Pop. 12,877.

Chiog'gia, a strong seaport in the province of Venice, on an island in the Gulf of Venice, connected with the mainland by a bridge of 43 arches. Pop. 26,732.—45, 13 N. 12, 17 E.

Circel'lo, Cape, the S. E. point of the Papal territory; the ancient *Circeum*, the fabled residence of the enchantress Circe.—41, 13 N. 13, 3 E.

Civita Vecchia (Chiv'ita Vek'kia), a strong seaport in the Papal States, on the Mediterranean, with considerable trade. Pop. 7823.—42, 4 N. 11, 45 E.

Colo'ne, Cape, on the E. coast of the province of Catanzaro.—39, 7 N. 17, 15 E.

Co'mo, a beautiful lake in Lombardy, between Milan and Chiavenna.

Co'mo, a city at the S. W. extremity of the lake of the same name, surrounded by charming scenery; it is the capital of the province of Como. Pop. 11,562.

Corsica. See FRANCE, p. 114.

Cosen'za, a city of Naples, capital

\* The Italians sound *ch* as *k*, and *ce*, *ci*, *cci*, like *ch* in *child*. This pronunciation has now become common in this country.

of the province of that name. Pop. 11,649.—39, 18 N. 16, 15 E.

Cremona, a city of Lombardy, capital of the province of Cremona, on the Po, with considerable trade and manufactures. It was formerly celebrated for its violins. Pop. 31,001.—45, 8 N. 10, 1 E.

Cuneo, a city of Piedmont, capital of the province of the same name, on the Stura, with cloth and silk manufactures. Pop. 12,797.

Elba, an island near the coast of Tuscany, the residence of Napoleon on his abdication in 1814. It is noted for its mines of iron. (Porto Ferrajo, the capital of the island, has a pop. of 5537.) Pop. 20,340.—42, 49 N. 10, 20 E.

Este, a town of Venetia, province of Padua. Pop. 10,640.

Etna (*Ital.* Gibello), a celebrated volcanic mountain in the N. E. of Sicily. Its height is 10,874 feet above the sea, and its circuit at the base is nearly 90 miles.

Faenza, a town of the Romagna, province of Ravenna. Pop. 17,486.

Fano, a seaport in the province of Pesaro-Urbino, on the Adriatic. Pop. 19,646.—43, 51 N. 13, 1 E.

Fermo, a town in the Marches, province of Ascoli, on the Adriatic. Pop. 18,043.—43, 10 N. 13, 43 E.

Ferrara, a city in the Romagna, capital of the province of Ferrara, on a branch of the Po. Here the poet Tasso was imprisoned from 1579 till 1586. Pop. 27,688.—44, 50 N. 11, 41 E.

Fiumicino, the ancient *Rubicum*, a small river in the Romagna, which flows into the Adriatic.

Florence (*Ital.* Firenze), a well-known city of Tuscany, capital of the Kingdom of Italy. The collection of paintings and statues in the Medici or Florentine Gallery is one of the noblest in the world. Among the eminent men born at Florence may be named Dante in 1265, and Michael Angelo in 1558. Pop. 114,363.—43, 46 N. 11, 15 E.

Foggia, a city of Naples, the capital of the province of the same name, with immense subterranean corn magazines, and a great annual fair for corn and wool. Pop. 32,493.

Forlì, a well-built town in the Romagna, capital of the province of Forlì. Pop. 17,723.

Fossano, a town of Piedmont, pro-

vince of Cuneo, with considerable trade. Pop. 16,524.

Frascati, the ancient *Tusculum*, a town in the Papal States, near Rome, beautifully situated on the declivity of a hill. Pop. 4975.

Gaeta, a strongly fortified seaport of Naples, on the gulf of the same name, province of Caserta. Pop. 14,217.—41, 12 N. 13, 34 E.

Gallipoli, a seaport of Naples, province of Lecce, on a rocky peninsula on the E. coast of the Gulf of Taranto, with a great trade in oil. Pop. 9362.—40, 3 N. 17, 58 E.

Garda, a lake in Venetia, from which the river Mincio issues.

Genoa, a maritime province of the Kingdom of Italy, once the territory of a celebrated republic. The struggle between the Genoese and the Venetians is the most memorable in the Italian annals of the Middle Ages. Pop. 650,143.

Genoa (*Ital.* Genova), a strong city and seaport, capital of the above province, beautifully situated on the bay of the same name. Its manufactures and commerce, though much less than formerly, are still great, and are now increasing. Here Columbus, the discoverer of America, was born about 1440. Pop. 127,986.—44, 24 N. 8, 52 E.

Girgenti, the ancient *Agrigentum*, a city on the S. W. coast of Sicily. Pop. 17,194.—37, 15 N. 13, 32 E.

Gozo, an island in the Mediterranean, 4 miles N. W. of Malta, belonging to Great Britain. Pop. 16,000.

Grosseto, a town of Central Italy, capital of the province of the same name. Pop. 6582.

Ischia (Is'kia), an island off the coast of Naples, with hot springs. Pop. 24,000.—40, 46 N. 13, 50 E.

Lecce, a handsome town of Naples, capital of the province of Lecce, in a rich district, with considerable trade. Pop. 17,836.

Leghorn (*Ital.* Livorno), a city and seaport in Tuscany, capital of the province of the same name, the greatest commercial emporium of Italy. Pop. 83,543.—43, 32 N. 10, 17 E.

Leuca, Cape, the S. E. extremity of Italy.—39, 48 N. 18, 22 E.

Lipari Islands, a volcanic group on the N. of Sicily. The most remarkable are Lipari and Stromboli; the volcano in the latter is in a state of perpetual activity. Pop. 22,000.

**Lo'di**, a town of Lombardy, province of Milan, on the Adda. Here in 1796 Napoleon gained one of his earliest and greatest victories. Pop. 19,562.

**Loret'to**, a town in the province of Ancona, on the Adriatic. Its *Santa Casa*, or holy house, believed to have been the dwelling of the Virgin Mary, was long annually visited by thousands of pilgrims. Pop. 8328.

**Luc'ca**, a maritime province of the Kingdom of Italy, formerly an independent duchy. It has been long distinguished for its silk manufactures, and its oil is esteemed the best in Italy. Pop. 256,161.

**Luc'ca**, the capital of the above province, situated in a rich and fertile plain, watered by the Serchio, and surrounded by mountains. Pop. 21,966.—43, 51 N. 10, 31 E.

**Luga'no**, a beautiful lake in the N. of Italy, between Lakes Maggiore and Como.

**MACERA'TA**, a town in the Marches, capital of the province of the same name. It is the seat of a university. Pop. 19,293.

**Magen'ta**, a town in the province of Milan, on the Tessino, on the road from Novara to Milan, where the Austrians were signally defeated by the French in June 1859. Pop. 6044.

**Maggiore** (Madjo're), or Lake of Locarno, situated at the foot of the Alps, and traversed by the Ticino. Its Borromean Islands are remarkable for their picturesque scenery.

**Mal'ta**, the ancient *Melita*, an island in the Mediterranean, 58 miles S. from Sicily, belonging to Great Britain. Its area is 98 square miles. Though naturally sterile, it has been made comparatively fertile by diligent cultivation. It was long the chief seat of the Knights of St John of Jerusalem. Pop. 134,055.

**Manfredo'nia**, a gulf of the Adriatic, on the E. coast of the province of Foggia.

**Manfredo'nia**, a well-built town and seaport on the gulf. Pop. 7812.—41, 38 N. 15, 56 E.

**Man'tua**, a city of Venetia, the capital of a province of the same name, formerly a republic. It is situated on an island formed by the Mincio, and is one of the strongest fortresses in Europe. Virgil was born here in the year 70 B.C. Pop. 28,197.—45, 9 N. 10, 48 E.

**Marsa'la**, the ancient *Lilybæum*, a seaport in the province of Trapani, Sicily, at the W. extremity of the island, noted for its wines. Pop. 31,380.—37, 49 N. 12, 21 E.

**Mass'a**, the capital of the province of Massa and Carrara. Pop. 15,017.

**Ma'tera**, a town in the province of Potenza, on the Gravina. P. 14,225.

**Messi'na**, a strong seaport in the N.E. of Sicily, capital of the province of Messina, situated on the straits of the same name, with a fine harbour. Pop. 62,024.—38, 11 N. 15, 34 E.

**Mil'an** (*Ital.* Mila'no), a noble city of Lombardy, capital of the province of Milan, situated in a beautiful plain between the Adda and the Ticino. It has a noble cathedral of white marble. In the Middle Ages, Milan was the capital of a republic, and afterwards of a duchy. It is now the centre and chief emporium of the silk trade of Lombardy. Pop. 196,109.—45, 28 N. 9, 11 E.

**Mod'ena**, the ancient *Mutina*, a handsome city, capital of the province of the same name, situated in a fertile plain, between the rivers Panaro and Secchia. Pop. 32,248.—44, 38 N. 10, 55 E.

**Mod'ica**, a town in the S. of Sicily, province of Noto, with some curious caves in its vicinity. Pop. 27,449.

**Mondo'vi**, a strong town in Piedmont, province of Cuneo, on the Elbero, with considerable manufactures. Pop. 17,726.

**Monop'oli**, a fortified town of Naples, province of Bari, on the Adriatic, with considerable trade in oil and wine. Pop. 17,505.

**Mon'za**, a town of Lombardy, near Milan. The celebrated iron crown of Lombardy was kept in its cathedral. Pop. 15,587.

**NA'PLÈS** (*Ital.* Nap'oli), the largest city in Italy, capital of the province of the same name. Its situation is delightful; rising like an amphitheatre, it forms, with its verdant shores and magnificent bay, a scene of almost unrivalled beauty. Previous to 1860, Naples was the capital of the Kingdom of the Two Sicilies. Pop. 418,968.—40, 51 N. 14, 15 E.

**Nova'ra**, a strongly fortified town of Piedmont, capital of the province of Novara. Here, in March 1849, the Austrians, under Radetzky, signally defeated the Sardinians under King Charles Albert, who immediately resigned the crown in favour

of his son Victor Emmanuel II. P. 27,528.

**ORVIE'TO**, a town in the province of Perugia, on a hill overlooking the Paglia. It has a fine cathedral. Pop. 6943.

**Otran'to**, a seaport of Naples, in the province of Lecce, on the Straits of Otranto, with a celebrated castle. Pop. 2032.

**PAD'UA** (*Ital.* Padova), a city of Venetia, the principal town in the province of the same name; it is the seat of an ancient university. Here the historian Livy was born in the year 59 B.C. Pop. 51,737.—45, 24 N. 11, 52 E.

**Paler'mo**, the ancient *Panormus*, a noble seaport of Sicily, the capital of the province of the same name, beautifully situated on the N. coast. It has several fine squares adorned with fountains and statues; the terrace of the Marino is a splendid promenade fully a mile in length. Pop. 167,625.—38, 8 N. 13, 22 E.

**Par'ma**, the chief town in the province of Parma, beautifully situated on a small river of the same name. Pop. 47,067.—44, 48 N. 10, 20 E.

**Pavi'a**, on the Ticino, capital of the province of the same name; it is the seat of a university. Here Francis I. of France was defeated and taken prisoner by the generals of the Emperor Charles V., in 1525. Pop. 28,670.—45, 11 N. 9, 9 E.

**Peru'gia**, Lake of, in the district of the same name, the *Lacus Thrasimeneus* of the Romans.

**Peru'gia**, a walled town, capital of the province of the same name, on the Tiber; it is the seat of a university. Pop. 14,885.—43, 6 N. 12, 23 E.

**Pesa'ro**, a well-built town in the ancient duchy of Urbino, capital of the province of Pesaro and Urbino, on the Adriatic, at the mouth of the Foglia. Pop. 19,905.

**Piacen'za**, the ancient *Placentia*, the principal town in the province of Piacenza, near the confluence of the Trebbia and the Po. P. 39,318.

**Pia'vè**, a river of Venetia, falling into the Gulf of Venice.

**Pinero'lo**, a manufacturing town in Piedmont, province of Turin, near the foot of the Alps. Pop. 15,832.

**Pi'sa**, a city of Tuscany, formerly the capital of a republic, situated on the Arno, and noted for its salubrity. It is the chief town in the province of Pisa, and the seat of a celebrated

university; its cathedral, baptistry, and leaning tower have long been famous. The astronomer Galileo was born here in 1564. P. 33,676.—43, 43 N. 10, 24 E.

**Pisto'ja**, a handsome city of Tuscany, province of Florence, on a tributary of the Arno. Pop. 12,274.

**Po**, the largest river in Italy, issues from Mount Viso, and, traversing the plains of Piedmont and Lombardy from W. to E., discharges itself, after a course of about 450 miles, including its windings, into the Adriatic by several mouths.

**Policas'tro**, Gulf of, on the W. coast of Naples.

**Pon'tine Marshes**, a large marshy tract in the southern extremity of the Papal States, extending 24 miles along the coast. It is traversed by the road from Rome to Naples.

**Por'tici**, a town in the province of Naples, at the foot of Vesuvius, on the site of the ancient *Herculaneum*. Pop., with Resina, 11,288.

**Port'o Mau'rizio**, a seaport town, capital of the province of the same name, on the Gulf of Genoa. Pop. 6906.

**Poten'za**, a fortified town of Naples, capital of the province of Potenza. Pop. 15,777.

**Pra'to**, a walled town of Tuscany, province of Florence, with a fine old cathedral. Pop. 11,933.

**Pro'cida**, a small island between Ischia and the coast of Naples. Pop. 13,810.

**RAVEN'NA**, the chief town in the province of the same name, on the Adriatic. It was the capital of the Western Empire in the 5th century. Here the poet Dante died in 1321. Pop. 57,303.—44, 25 N. 12, 12 E.

**Reggio** (*Red'jio*), a walled town of N. Italy, capital of the province of the same name. Here the poet Ariosto was born in 1474; the painter Correggio in 1494; and the naturalist Spallanzani in 1729. Pop. 21,174.

**Reg'gio**, an ancient town and seaport of Naples, capital of the province of Reggio Calabria, on the Straits of Messina, in a very fertile district. Pop. 30,577.—38, 6 N. 15, 40 E.

**Rie'te**, a town in the province of Perugia, on an elevated plain near the Velino. Pop. 14,224.

**Rim'ini**, the ancient *Arim'inum*, a seaport in the province of Forli, on

the Adriatic. Pop. 16,850.—44, 4 N. 12, 34 E.

**ROME**, the seat of the Pope, and once the mistress of the world, is situated on the Tiber, about 15 miles from the seacoast. It abounds in noble monuments of antiquity. Among its modern structures may be mentioned St Peter's, the most magnificent church in the world, the palace of the Vatican, and the castle of St Angelo. Its numerous churches and palaces, adorned with the greatest masterpieces of painting and sculpture, attract visitors and students in the fine arts from all parts of the world. Pop. 217,378.—41, 54 N. 12, 27 E.

**Rovigo**, a town of Venetia, capital of the province of the same name, near the Adige. Pop. 36,000.

**SALER'NO**, a city of Naples, capital of the province of Salerno, on a gulf of the same name, the seat of a university. Pop. 20,977.

**Saluz'zo**, a town of Piedmont, province of Cuneo, at the foot of the Alps, on an affluent of the Po. Pop. 16,208.

**San Marino**, the capital of the small republic of the same name, in Central Italy, S. of the province of Forlì. Pop. 1000.

**Sardin'ia**, a large island in the Mediterranean, S. of Corsica. It has a very diversified surface; and although its soil is in general fertile, and a good deal has been done for the improvement of the island of late years, cultivation is still in a backward state. Area, 9547 square miles. Pop. 588,064.

**Sassa'ri**, a city in the N. W. of Sardinia, capital of the province of the same name, with a seaport called Porto Torres. Pop. 22,945.—40, 43 N. 8, 34 E.

**Savo'na**, a seaport in the province of Genoa, on the Gulf of Genoa. P. 19,611.—44, 18 N. 8, 27 E.

**Sic'ily**, the largest island in the Mediterranean, separated from Italy by the Straits of Messina. Its extreme length is 180 miles, and its greatest breadth 120; area, 10,500 square miles. It is mountainous, but the soil is rich, and the climate delightful. Its vegetable productions embrace many tropical as well as European plants, and it was anciently regarded as the granary of Italy. The principal articles of export are the wines of Marsala, sulphur, fruits, and olive-oil. Pop. 2,392,414.

**Sien'na**, a beautiful city in Tuscany, capital of the province of the same name; it is the seat of a university. Here the Italian language is spoken in great purity. Pop. 21,902.

**Solferi'no**, a village in Lombardy, province of Cremona, to the south of the Lake of Garda. Here the French under Napoleon III. defeated the Austrians under Francis-Joseph I., in June 1859. Pop. 1095.

**Sorren'to**, a town delightfully situated on the Bay of Naples. Here the poet Tasso was born in 1544. Pop. 6686.

**Spartiven'to**, Cape, the most southerly point of Italy.—37, 56 N. 16, 3 E.

**Sped'zea**, a seaport in the province of Genoa, with an excellent harbour. Pop. 11,556.—44, 4 N. 9, 51 E.

**Spole'to**, a town in Central Italy, province of Perugia, with a stupendous aqueduct, carried over a deep ravine by 10 arches. Pop. 19,936.

**Squilla'ce** (chè), a gulf in the S. of Naples.

**Syracuse**, a city of Sicily, with extensive remains of the celebrated ancient capital of that name. Pop. 19,757.—37, 3 N. 15, 17 E.

**TAGLIAMEN'TO**, a river of Venetia, which rises in the Tyrol, and falls into the Adriatic.

**Tan'aro**, a river of Piedmont, which passes Alessandria, and joins the Po.

**Tar'anto**, Gulf of, a spacious bay, formed by the S. W. and S. E. extremities of Italy.

**Tar'anto**, the ancient *Tarentum*, a seaport on a small island in the gulf of the same name, with a good harbour. Pop. 19,105.

**Ter'ni**, the *Interamna* of the ancients, a town in the province of Perugia, on the Nera. Here the historian Tacitus was born in the year 54 B.C. There are celebrated waterfalls a mile below the town at the influx of the Velino into the Nera. Pop. 14,663.

**Terraci'na**, a seaport on the S. of the Papal States, on the Mediterranean. Pop. 5000.—41, 18 N. 13, 10 E.

**Ti'ber** (*Ital.* Teve're), the classical river on which Rome stands, rises in the Apennines, flows through the Papal States, and falls into the Mediterranean.

**Tici'no**, a river which rises in Mount St Gothard, flows through

Lake Maggiore, and falls into the Po below Pavia.

Tiv'oli, the ancient *Tibur*, a town to the east of Rome, delightfully situated on the Teverone. Pop. 6750.

Torre del Gre'co, a town at the foot of Mount Vesuvius, which has been repeatedly destroyed by lava and earthquakes. Pop. 9294.

Tra'ni, a seaport of Naples, province of Bari, on the Adriatic. Pop. 22,382.—41, 17 N. 16, 26 E.

Trapa'ni, the ancient *Drepanum*, a seaport on the W. coast of Sicily, capital of the province of the same name. Pop. 26,334.—38, 3 N. 12, 23 E.

Trevi'so, a town of Venetia, capital of the province of the same name, on the Sile, with considerable trade. Pop. 22,165.

Turin', a city in Piedmont, formerly the capital of the kingdom, situated on the Po. Its streets and squares are spacious and elegant, and it is the seat of a distinguished university. Pop. 180,520.—45, 4 N. 7, 42 E.

U'DINE, a city of Venetia, capital of the province of the same name. Pop. 24,124.

Urbi'no, a town in the province of Pesaro and Urbino. Here the painter Raphael was born in 1483. Pop. 15,444.

VALET'TA, the capital of Malta, with a fine harbour and fortifications of great strength. It was successfully defended by the Knights of St John against the Turks in 1565. Pop. 53,000.—35, 54 N. 14, 30 E.

Val'telline, a district of Lombardy, consisting of a long valley traversed by the Adda.

Velle'tri, a walled town of the Pontifical States, near the Pontine Marshes. Pop. 12,000.

Ven'ice (*Ital.* *Vene'zia*), the capital of the province of the same name, situated on the Gulf of Venice, is built on a number of isles separated by canals, and is now connected with the mainland by a railway. This magnificent city presents at a distance the singular appearance of domes and spires, churches and palaces, floating on the waves. Pop. 113,525.—45, 26 N. 12, 20 E.

Veno'sa, the ancient *Venusia*, a

town of Naples, province of Potenza. Horace was born here about 67 B.C. Pop. 7038.

Vercel'li, a town of Piedmont, province of Novara, on the Sesia, with a fine cathedral. Pop. 19,352.

Vero'na, a city in Venetia, capital of the province of the same name, beautifully situated on the Adige. Here is a fine amphitheatre, the most perfect specimen of Roman architecture which now exists. Pop. 56,418.—45, 26 N. 11, 1 E.

Vesu'vius, a volcanic mountain, about 8 miles S. E. from the city of Naples. In its first great eruption on record (A.D. 79), which was accompanied by an earthquake, the cities of Herculaneum and Pompeii were buried beneath lava and ashes. Excavations made during the last century, by uncovering these ancient cities, have furnished the world with many curious and interesting relics of classic times. The eruption of August 1834 was the most destructive of modern date: that of the spring of 1867-68 was of more than usual magnitude. The mountain is about 4000 feet high.

Viareg'gia, a seaport of Tuscany, in the province of Lucca, with a flourishing trade. Pop. 17,344.

Vicen'za, a city of Venetia, capital of the province of the same name. It contains many fine specimens of the architectural skill of Palladio. Pop. 34,538.—45, 32 N. 11, 33 E.

Vill'afra'n'ca, a town in Venetia, province of Verona, where in 1859 a treaty of peace was concluded between the French and the Austrians. Pop. 6000.

Vi'so, Mount, one of the Cottian Alps in Piedmont, 13,599 feet high. The Vaudois, the descendants of the ancient Waldenses, inhabit the neighbouring valleys.

Viter'bo, a city of the Papal States, with a pontifical palace. Pop. 13,850.

Volter'ra, the ancient *Volaterræ*, a town of Tuscany, province of Pisa, with vast remains of Etruscan architecture. Pop. 4500.

Voltur'no, a river of Naples, which rises in the Apennines, and falls into the Gulf of Gaeta. On its banks, in October 1860, the Italians, under Garibaldi, defeated the army of the King of Naples.

## TURKEY IN EUROPE

Is bounded N. by Austria and Russia; W. by Dalmatia and the Adriatic; S. by Greece, the Archipelago, the Dardanelles, the Sea of Marmora, and the Straits of Constantinople; E. by Russia and the Black Sea. It contains about 200,000 square miles. It has a population of 16,437,510.

Provinces.	Chief Towns.
Roumelia, including Thrace and Macedonia.....	{ CONSTANTINOPLE, Adrianople, Philippoli, Gallipoli, Philippi, Seres, Salonica.
Bulgaria.....	{ Silistria, Shumla, Varna, Widdin, Nicopoli, Rustchuk.
Thessaly.....	Larissa, Pharsalia, Volo.
Albania.....	Scutari, Janina, Durazzo.
Bosnia, including Herzegovina and Turkish Croatia }	Bosna-Serai, Trawnik, Mostar, Bihacz.
<i>Tributary States—</i>	
Roumania (Moldavia and Wallachia) .....	{ Jassy, Galatz, Ismail; Bucharest, Tergovist.
Servia.....	Belgrade, Semendria.
Montenegro.....	Cettigne.

**ISLANDS.**—Lemnos, Imbros, Samothraki, Thasos, Candia or Crete.

**GULFS.**—Arta, Volo, Salonica, Cassandra, Monte Santo, Contessa, Saros.

**SEAS AND STRAITS.**—The Archipelago, the Sea of Marmora; the Dardanelles or Hellespont; the Bosphorus, or the Straits or Channel of Constantinople.

**CAVES.**—Cassandra, Deprano, Monte Santo.

**MOUNTAINS.**—Hæmus or the Balkan, Rhodope, Olympus, Ossa, Pelion, Pindus, Athos.

**RIVERS.**—Danube, Save, Morava, Sereth, Pruth, Maritza, Vardar, Selembria.

### REMARKS.

The Turkish Empire in Europe, Asia, and Africa contains an area of 1,812,000 sq. miles, and a population of 42,065,510.

Turkey in Europe extends from 39° to 48° N. lat., and from 16° to 30° E. long. Its length, from Constantinople to the Adriatic, is about 500 miles; its breadth, from the north of Greece to the Danube at Belgrade, is about 400 miles.

Turkey may be considered a mountainous country, although its peaks cannot vie with the loftier Alps. A great chain stretches from east to west, the eastern part being the ancient Hæmus, now called the Balkan. This extensive range is joined to the Carpathians by a ridge which separates Servia from Bulgaria. The Thracian mountains of Rhodope are a branch of the Hæmus. Two inferior chains diverge from the principal range; one traversing Albania, the other extending through the whole of Greece to the extremity of the Morea. In the latter are the classic Ossa, Pelion, Olympus, and Pindus. Scenery of unrivalled beauty occurs in these mountainous regions, which the lively imagination of the ancient Greeks fancied to be the favourite haunts of the gods. In Moldavia and Wallachia (Roumania), and in the large tract of Roumelia watered by the Maritza and its tributaries, there are extensive and beautiful plains.

Turkey is peculiarly favoured in soil and climate. The former is generally a rich mould; the latter is alike delightful in temperature and genial to vegetation, although in some localities a greater degree of cold is experienced in winter than would be supposed from the geographical position of the country. Notwithstanding, however, the great advantages which soil and climate afford, agriculture has made little progress, except, perhaps, in Roumania. The cause of this is partly to be found in the want of roads, the peculiarities of the tenure of land, and the general apathy of the people. The principal productions are corn, fruits, wine, coffee, rhubarb, myrrh, and other odiferous plants. Almost the only manufactures are carpets, silks, leather, preserved meats, and sword-blades.

The horses of Turkey, particularly those of Thessaly, have long been celebrated. The sheep of Wallachia are remarkable for their elegant spiral horns.

The Turks are the latest immigrants into Europe, the date of their final establishment on this continent being towards the close of the fourteenth century. Though the ruling race, they form only about a fourth of the population, the remainder consisting of Romans, Greeks, Slavonians, Armenians, and Jews. The supreme power is vested in the Sultan or Grand Seignior. The executive is delegated to a Grand Vizier and to Pashas or governors of provinces. The power of the Grand Seignior has been gradually declining for nearly two centuries. Greece had been separated from his dominions, and Egypt raised into a tri-



butary state, when, in 1854, Russia, with the hope of possessing Constantinople, seized Moldavia and Wallachia, then known as the Danubian Principalities, and so provoked a war with Britain, France, and Turkey, the first effect of which was to put an end to all the treaties by which for a hundred years Russia had been steadily encroaching upon the independence of the Ottoman Empire. The Danubian Principalities were united under one ruler in 1859, and under one administration in 1861, when their name was changed into that of Roumania.

The established worship is the Mohammedan. A large proportion of the population belong to the Greek or Eastern church, and there are besides many Armenians and Jews.

The people, while hospitable and brave, are also proud, bigoted, and implacable. Literature and science are little cultivated, the principal object of education being to be able to read the Koran, which may be said to contain the religion, laws, and literature of the Turks.

#### EXERCISES

What are the boundaries of Turkey in Europe? What is its extent in square miles? What is its population? Name the provinces of Turkey and the tributary states. What are the chief towns of Roumelia? Of Bulgaria? Of Thessaly? Of Albania? Of Bosnia? What districts are included in Roumelia? What are the states which are known under the name of Roumania? Where are Varna, Tergovist, Shumla, Contessa, Rustchuk, Jassy, Bihacz, Larissa, Semendria, Mostar, Durazzo? etc.

Where are the Gulf of Arta, the Dardanelles, Mount Hæmus, the Straits of Constantinople, Olympus, Gulf of Monte Santo, Samos, the Vardar, the Selebria, Scarpanto, Gulf of Cassandra, the Maritza, Mount Ossa? etc.

Between what degrees of latitude and longitude is Turkey situated? What are its length and breadth? What is its general appearance? In what direction does a great chain of mountains stretch through the country? What name is given to the eastern part of the chain? How is this range connected with the Carpathians? Of what chain is Rhodope a branch? What other chains diverge from the great range? What classic mountains occur in one of those chains? What kind of scenery is met with among these mountains? In what part of the country do extensive and beautiful plains occur?

What is the nature of the soil in Turkey? What kind of climate does it enjoy? By what cause are the inhabitants prevented from reaping the full benefit of their natural advantages? What are the principal productions? What domestic animals of Turkey are famous?

When did the Turks enter Europe? What is the nature of the Turkish government? By what name is the sovereign called? To whom does he delegate his power? Has the Turkish power lately

declined? What part of her dominions has been separated from her? What other part has become only tributary? With what powers did Russia provoke war in 1854? What was the first effect of that war? When were Moldavia and Wallachia united under one ruler? What is their present name?

What religions prevail?

What is the natural character of the Turks? Are they in general well educated?

#### DESCRIPTIVE TABLE.

**ADRIANO'PLE**, a city in Roumelia, situated on the Maritza, in a beautiful plain. It was the principal residence of the sultans previous to the taking of Constantinople by Mohammed II. in 1453, and it still ranks next to the capital in importance. Pop. 150,000.—41° 42' N. lat. 26° 35' E. long.

**Alba'nia**, a province having Montenegro, Herzegovina, Bosnia, and Servia, on the N.; Macedonia and Thessaly on the E.; Greece on the S.; and the Mediterranean Sea and the Adriatic Sea on the W. Its inhabitants, called by the Turks *Ar-wants*, are the descendants of the ancient Illyrians, and are a brave and hardy race. Pop. 1,200,000.

**Archipel'ago** (*Arkè*), called by the ancients the *Ægean Sea*, is that part of the Mediterranean Sea, including the islands, which lies between Turkey and Greece on the W., and Asia Minor on the E.

**Ar'ta**, a town of Albania, on a river of the same name. Pop. 7000.

**Ar'ta**, Gulf of, the *Ambracian Gulf* of the ancients, between Albania and Greece, extending about 25 miles inland.

**A'thos**, Mount, a mountain in Macedonia, 6778 feet high, occupying a peninsula formed by the Gulfs of Contessa and Monte Santo. It has received the name of *Monte Santo*, or the Holy Mount, from its numerous monasteries, which are supposed to contain about 3000 monks.

**BAL'KAN**, or Hæmus, Mountains. See Remarks, p. 153.

**Banialoo'ka**, a strong town in Turkish Croatia, on the Verbas. Pop. 8000.

**Belgrade'**, a strongly fortified city, the capital of Servia, at the confluence of the Danube and the Save. Pop. 30,000.—44, 48 N. 20, 38 E.

**Berat'**, a town in Albania, on the Beratino. Pop. 9000.

**Bihacz'**, a strong town in Turkish Croatia, on the Unna. Pop. 3000.

**Bos'na-Seral'**, the capital of Bosnia, situated on a small stream. It has considerable manufactures of lances, daggers, and other arms. Pop. 70,000.—43, 53 N. 18, 25 E.

**Bos'nia**, a mountainous province in the N. W., traversed by the Dinaric Alps; along with Herzegovina and Turkish Croatia, it forms an eyalet, and is subdivided into five sanjaks. Area, 22,000 square miles. Pop. 1,100,000.

**Bu'charest**, or Bu'kåorest, the capital of Roumania, on the Dumbovitzza, a tributary of the Danube. Pop. 121,734.—44, 26 N. 26, 10 E.

**Bulga'ria**, a province between the Danube and the mountain-range of Hæmus. It was called by the Romans *Mæsia Inferior*. Pop. 3,000,000.

**CAN'DIA**, a large island in the S. of the Archipelago, 160 miles long and from 10 to 30 broad. To the classical scholar, *Crete*, the ancient name of the island, is familiar; as are its Mount Ida, 7800 feet high, and its celebrated labyrinth. Its soil is fertile, and produces oil, wine, saffron, and a variety of fine fruits. Pop. 210,000.

**Can'dia**, the capital of the island of the same name, situated on the N. coast, in an elevated plain. It sustained a siege of 20 years against the Turks, from 1648 to 1669. Pop. 30,000.—35, 21 N. 25, 8 E.

**Ca'nea**, the ancient *Cydonia*, a strong seaport in the N. W. of the island of Candia. Pop. 16,000.—35, 28 N. 24, 0 E.

**Cassan'dra**, Gulf of, in the N. W. of the Archipelago.

**CONSTANTINO'PLE**, the capital of the Turkish empire, finely situated at the junction of the Bosphorus with the Sea of Marmora. Its ancient name was *Byzantium*, and by the Turks it is now called *Stamboul*. Constantine the Great rebuilt the city A.D. 330, and gave it the name of *Constantinopolis*, or the *City of Constantine*. From that period it con-

tinned to be the seat of the Eastern or Greek empire till 1453, when it was taken by the Turks under Mohammed II., who made it the metropolis of the Ottoman dominions. Pop. including the suburbs, 1,075,000.—41, 0 N. 28, 59 E.

Constantino'ple, Straits of, anciently called the *Thracian Bos'porus*, the narrow channel which connects the Sea of Marmora with the Black Sea.

Contess'a, Gulf of, in the N. W. of the Archipelago, between the peninsula of Mount Athos and the coast of Macedonia.

Croa'tia, one of the three districts which form the eyalet of Bosnia.

DAN'UBE, River. See GERMANY.

Dardanelles', the ancient *Hellespont*, the strait connecting the Sea of Marmora with the Archipelago. Its length is upwards of 50 miles; its width is generally about two miles, but in some places towards the S. extremity it narrows to one mile. Two ancient castles, one on the European side and the other on the Asiatic side, are properly called the Dardanelles, and from them the strait takes its name.

Durazzo (Doorad'zo), a seaport in Albania, anciently called *Dyrrachium*, the usual landing-place from *Brundisium* in Italy. Pop. 10,000.

GAL'ATZ or Gal'acz, a commercial town in Moldavia, on the Danube, near its junction with the Pruth. Pop. 30,000.

Gallip'oli, a commercial city and seaport in Thrace, on the Dardanelles. Pop. 50,000.—40, 25 N. 26, 39 E.

Gradis'ca or Ber'bir, a strong town in Turkish Croatia, on the Save. Pop. 1850.

HERZEGOVINA, a mountainous district in the eyalet of Bosnia. Soil fertile, but in some parts marshy. Chief town, Mostar.

IM'BROS, an island off the E. entrance of the Dardanelles, 19 miles long and 10 miles broad. Pop. 4000.

Ismail', a strongly fortified town in Moldavia, on the principal arm of the Danube, about 40 miles from the Black Sea. After a brave resistance by the Turks it was taken by the Russians under Suwarrow, in 1790. It was restored to Turkey in 1856 by the Treaty of Paris. Pop. 25,000.

JANI'NA or Joanni'na, the capital of Albania, situated on the side

of a lake, in a plain covered with groves and gardens. Here Ali Pasha was assassinated in 1822. Pop. 36,000.—39, 48 N. 20, 53 E.

Jas'sy, the chief town in Moldavia, and the see of the Greek archbishop of the province. Pop. 30,000.—47, 10 N. 27, 28 E.

LARIS'SA, the capital of Thessaly, situated on the Selembria. Pop. 25,000.—39, 38 N. 22, 28 E.

Lem'nos or Stalime'nè, an island in the Archipelago, between Monte Santo and the Dardanelles. Pop. 10,000.—39, 50 N. 25, 11 E.

MACEDO'NIA, a district of Roumelia, bounded by Mount Hæmus on the N., Thrace on the E., Thessaly on the S., and Albania on the W. The soil is generally fertile.

Marit'za, the ancient *Hebrus*, a river of Thrace, which issues from Mount Hæmus, and falls into the Archipelago W. of the Gulf of Saros.

Molda'via, a province in the N. E. of Turkey, forming a part of Roumania. Pop. 1,463,927. See Roumania.

Monas'tir, or Bito'glla, a town in the W. of Macedonia. Pop. 30,000.

Montene'gro, a mountainous district between Herzegovina and Albania, forming a semi-independent principality, under a ruler called the *gospodar* or *vladika*. The people, who are of the Slavonic race, are brave and warlike. Pop. 196,238.

Mon'te San'to, Gulf of, in the Archipelago. See Athos, Mount.

Mora'va, a river which rises in Bulgaria, flows through Servia, and falls into the Danube near Semendria.

Mos'tar, the capital of Herzegovina, on the Narenta. Pop. 11,959.

NICOP'OLI, a city of Bulgaria, on the Danube. It is the see of a Greek archbishop, and a place of considerable trade. Pop. 16,000.

Niss'a, a strongly fortified town in Roumelia, on the Nissawa, noted for its warm baths. Pop. 6000.

No'vi-Bazar' or Ieni-Bazar, a town in Bosnia. Pop. 15,000.

OLYM'PUS, a celebrated mountain in the N. of Thessaly, 9754 feet high. During a great part of the year its summit is covered with snow. The ancient Greeks fancied that it sustained the heavens, and was the residence of the gods.

Os'sa, a mountain in Thessaly, to the S. E. of Olympus, from which it is separated by the Vale of Tempe.

**PAR'GA**, a seaport in Albania, with an almost impregnable citadel, memorable for the heroism of its inhabitants in the war with Ali Pasha, 1806-19. Pop. 4000.

**Pe'lion**, a celebrated mountain in Thessaly, S. of Ossa.

**Pharsa'lia**, a town in Thessaly, famous for the battle fought in its neighbourhood between Cæsar and Pompey, B.C. 48. Pop. 5000.

**Philip'pi**, a town in Macedonia. The adjacent plains are celebrated in ancient history as the scene of a battle between Cassius and Brutus on the one side, and Augustus and Antony on the other, B.C. 42.

**Philippop'oli**, a town in Thrace, on the Maritza, founded by Philip, the father of Alexander the Great. Pop. 40,000.—42, 3 N. 24, 56 E.

**Pin'dus**, a chain of mountains separating Macedonia and Thessaly from Albania, and rising, in some places, to the height of 8950 feet.

**Prev'esa**, a seaport in Albania, at the entrance of the Gulf of Arta. Pop. 8000.—38, 56 N. 20, 45 E.

**Pruth**, a river which rises in Hungary, and after forming, in the upper part of its course, the boundary between Moldavia and Russia, falls into the Danube below Galatz.

**Rodos'to**, a flourishing commercial town, on the Sea of Marmora. Pop. 40,000.

**Rouma'nia**, the name given to the united provinces of Moldavia and Wallachia. In virtue of the Treaty of Paris of 1856, it enjoys a constitutional government under an elective prince, approved of by the Sultan. The Roumanians pay an annual tribute of £40,000 to Turkey. Pop. 3,864,848.

**Roume'lia**, an extensive province, comprising Thrace, Macedonia, and Thessaly. Pop. 1,527,000.

**Rust'chuk**, a fortified city in Bulgaria, on the Danube. It is a place of considerable trade. Pop. 30,000.—43, 50 N. 26, 2 E.

**SALONI'CA**, the ancient *Thessaloni'ca*, a city of Macedonia, beautifully situated on the acclivity of a hill, at the N. E. extremity of the gulf which bears its name. It is strongly fortified, and has a considerable trade. Pop. 70,000.—40, 38 N. 22, 57 E.

**Saloni'ca**, Gulf of, a spacious bay in the S. of Macedonia.

**Samothra'ki**, an island in the Ar-

chipelago, 14 miles N. N. W. of Imbros. Pop. 1500.

**Sa'ros**, Gulf of, in the N. E. of the Archipelago.

**Save**, a river which rises in Austrian Illyria, separates Slavonia from Turkey, and joins the Danube near Belgrade.

**Scu'tari**, a fortified town, the capital of Upper Albania, in a rich plain, at the S. extremity of the Lake of Scutari. Pop. 40,000.—42, 3 N. 19, 38 E.

**Selem'bria**, the ancient *Peneus*, a river in Thessaly, issuing from Mount Pindus, and flowing through the Vale of Tempe into the Gulf of Salonica.

**Semen'dria**, a fortified town in Servia, on the Danube. Pop. 12,000.

**Se'res**, a large town in Macedonia, to the E. of the river Struma. It has manufactures of coarse linens and cottons. Pop. 30,000.—41, 5 N. 23, 36 E.

**Se'reth**, a river which rises in the Carpathians, and, after traversing Wallachia, falls into the Danube.

**Ser'via**, a province in the N. of Turkey, the *Mæsia Superior* of the Romans. It is governed by a hereditary prince (confirmed by the Sultan), with a national assembly called the *skupschina*. Pop. 1,078,281.

**Shum'la**, a very strong town in Bulgaria, on the great road from Constantinople to Wallachia. It has been repeatedly besieged by the Russians. It has a considerable trade in silk and hardware. Pop. 50,000.—43, 12 N. 26, 58 E.

**Silis'tria**, a fortified town in Bulgaria, on the Danube. It was unsuccessfully besieged by the Russians in 1854. Pop. 20,000.—44, 8 N. 27, 13 E.

**Sisto'va**, a flourishing commercial town in Bulgaria, on the Danube. Pop. 20,000.—43, 36 N. 25, 20 E.

**Sophi'a**, a town of Roumelia, near the river Isker. Though an inland town, its trade is considerable. Pop. 30,000.—42, 36 N. 23, 28 E.

**Stru'ma** River, the ancient *Strymon*, which formed the boundary between Thrace and Macedonia; it rises in Mount Hæmus, and falls into the Gulf of Contessa.

**Su'li**, a mountainous district in the S. of Albania, inhabited by a brave race of Greeks, who were almost exterminated in their wars with Ali Pasha and the Porte in 1808.

**TER'GOVIST**, a town in Wal-lachia, situated on the Jalonitza. Pop. 5000.

**Tha'sos**, an island off the coast of Roumelia, fertile and well wooded. Pop. 6000.

**Thes'saly**, a fertile district in the S. of Roumelia. Its fine plains are watered by streams from the moun-tains.

**Thrace** or **Roma'nia**, a district of Roumelia, bounded N. by the Balkan Mountains; W. by Macedonia; S. by the Archipelago, the Dardanelles, and the Sea of Marmora; and E. by the Straits of Constantinople and the Black Sea.

**Traw'nik**, a fortified town in Bos-nia. Pop. 8500.

**Trica'la**, a town in Thessaly, near the Selembría. Pop. 12,000.

**VAR'DAR** River, the *Azias* of antiquity, rises near the northern frontier of Macedonia, and flows into the Gulf of Salonica.

**Var'na**, the ancient *Odessus*, a strong seaport of Bulgaria, on a bay of the Black Sea, with considerable trade. Here the British and French forces embarked in 1854 to invade the Crimea. Pop. 25,000.—43, 12 N. 27, 56 E.

**Vo'lo**, a seaport in Thessaly, on the N. side of the gulf of the same name. Pop. 2000.

**Vo'lo**, Gulf of, on the S. E. coast of Thessaly.

**WALLA'CHIA**, an extensive province, part of Roumania, sepa-rated by the Carpathian Mountains from Transylvania, and by the Dan-ube from Bulgaria. Pop. 2,400,921. See Roumania.

**Wid'din**, a fortified city in Bul-garia, on the Danube, the residence of a Turkish pasha and of a Greek archbishop. Pop. 25,000.—43, 59 N. 22, 53 E.

**ZWOR'NIK**, a town in Bosnia, on the Drina. Pop. 15,000.

## GREECE

Is bounded N. by Turkey; W. and S. by the Mediter-ranean; E. by the Archipelago. It contains 19,941 square miles. It has a population of 1,348,522.

**DIVISIONS.**—The geographical divisions of the Kingdom of Greece are—Hellas or Continental Greece, in the N.; the Morea or Peninsular Greece, in the S.; Insular Greece, comprising the islands in the Archipelago and the Ionian Islands. For administrative purposes the whole country is divided into the following 14 nomarchies or departments:—

Divisions.	Nomarchies.	Chief Towns.
Hellas and Eubœa.	Attica and Bœotia.....	ATHENS, Piræus, Thebes, Livadia.
	Eubœa.....	Egripo or Chalcis.
	Phthiotis and Phocis...	Lamia, Salona.
	Acarmania and Ætolia.	Missolonghi.
Morea.	Argolis and Corinth....	Nauplia, Argos, Spezzia, Hydra.
	Achaia and Elis.....	Patras.
	Arcadia.....	Tripolitza.
	Messenia.....	Calamata.
	Laconia.....	New Sparta.
Insular Greece.	The Cyclades.....	Syra.
	Corfu (with Paxo) .....	Corfu.
	Cephalonia.....	Argostoli.
	Leucadia (with Ithaca).	Amaxichi.
	Zante (with Cerigo).....	Zante.

**ISLANDS.**—Eubœa or Negropont, Skyro, Egina, Salamis, Poros, Hydra, Spezzia; the Cyclades, the principal of which are Andro, Tino, Miconi, Zea, Syra, Naxia, Paros, Milo, Santorin, Nio; Ionian Islands (Corfu, Cephalonia, Zante, Santa Maura, Ithaca, Cerigo, Paxo).

**GULFS.**—Patras, Lepanto, Egina, Nauplia, Kolokythia, Coron.

**CAVES.**—Klarenza, Gallo, Matapan, Maleo or St Angelo, Skillo, Colonna.

**MOUNTAINS.**—Parnassus, Helicon, Taygetus or the Mountains of Maina.

**RIVERS.**—Aspropotamo, Roufia, Eurotas.

#### REMARKS.

Greece lies between  $36^{\circ} 23'$  and  $39^{\circ} 30'$  N. lat., and between  $21^{\circ}$  and  $26^{\circ}$  E. long. Its length, from Cape Matapan to the northern boundary, is about 200 miles; its breadth, from Cape Klarenza to the east coast, about 150 miles.

The territory of Greece, though comparatively small, is full of interest. It consists chiefly of a succession of valleys, bounded by mountains of moderate elevation, presenting the most picturesque aspects, and generally capable of great improvement, being well adapted either for agriculture or for pasturage. Almost every part of the country has remains of magnificent monuments, in the purest style of classic architecture, erected when Greece was in its glory.

Its extensive range of coast, indented by numerous bays, and the variety of its islands, while they diversify the scenery, eminently fit the country for commerce.

The Greeks, professing a form of Christianity, had, ever since the establishment of the Ottoman ascendancy, in the fifteenth century, been held under grievous oppression. Degenerated from the lofty spirit of former times, they long endured this tyranny with tame submission. At length they felt the influence of the spirit of freedom and knowledge which had spread through Western Europe, and were fired with an ambition to emulate the heroic deeds and free condition of their ancestors. They rose in arms against the Turks in 1821; but the contest was arduous, and for a time its issue seemed doubtful. Notwithstanding many gallant achievements, the Greeks were reduced to a state of exhaustion, when in 1830 the armed intervention of Britain, Russia, and France, compelled the

Turks to acknowledge the independence of Greece. The crown, which was offered to Prince Leopold, late King of the Belgians, but declined by him, was conferred on Prince Otho of Bavaria, who ascended the throne in February 1833. He was deposed in 1863, and succeeded by George, second son of Christian IX., King of Denmark.

The government is a hereditary monarchy, with two legislative chambers—a senate, and a house of representatives. The national religion is that of the Greek or Eastern Church, so called in contradistinction to the Roman, Latin, or Western Church, from which it separated in the ninth century.

#### EXERCISES.

What are the boundaries of Greece? What is its extent in square miles? What is the number of its inhabitants? Name its divisions. What are the chief towns of Hellas? Of the Morea? What are the principal islands?

Where is the Gulf of Lepanto? Of Egina? Where are Cape Matapan, Mounts Parnassus and Taygetus, Athens, Thebes, Tripolitza, Hydra, Navarino, Salamis, Nauplia, Paros? etc.

Between what degrees of latitude and longitude is Greece situated? What are its length and breadth? Of what does its territory consist? For what is it well adapted? For what is almost every part of the country interesting? What peculiarly fits Greece for commerce?

Under what yoke were the Greeks oppressed? What led them to shake it off? By whose interposition was their independence secured? To whom did they offer the crown? On whom was it settled? Who is the present king? What form of government has been established? What is the national religion?

#### DESCRIPTIVE TABLE.

AMAX'ICHI, a seaport on the E. coast of the island of Santa Maura or Leucadia, of which it is the capital. Pop. 7000.

AN'dro, an island in the Archipelago, S. of Eubœa. Pop. 16,000.—37° 50' N. lat. 24° 50' E. long.

Antipa'ros, a small island in the Archipelago, between Paros and Siphanto. Its celebrated grotto of crystalline rocks presents, when lighted up, a most brilliant appearance. P. 500.

Arca'dia, a seaport on the W. coast of the Morea. Pop. 4000.—37, 14 N. 21, 41 E.

Archipel'ago. See TURKEY IN EUROPE, p. 155.

Ar'gos, a town in the Morea, nomarchy of Argolis, situated on the Gulf of Nauplia. Pop. 9157.

Argosto'li, capital of the island of Cephalonia, on its S. W. side. Pop. 8000.

Aspropot'amo, the ancient *Achelous*, a river rising in Mount Pindus, on the borders of Thessaly, and falling into the mouth of the Gulf of Patras.

ATH'ENS, anciently the capital of Attica, and now of the modern kingdom of Greece, distinguished by the interesting remains of its ancient grandeur. It was the most renowned city in antiquity for the genius of its inhabitants, and their eminence in literature, philosophy, oratory, and the fine arts. Pop. 41,298.—37, 58 N. 23, 44 E.

CALAMA'TA, a seaport town in the Morea, capital of the nomarchy of Messenia. Pop. 2000.

Cas'tri, the ancient *Delphi*, a small town in Hellas, nomarchy of Phthiotis and Phocis, situated on the S. side of Mount Parnassus.

Cephalo'nia, the largest of the

**Ionian Islands.** It is remarkably fertile, and the climate is very mild. Pop. 21,500.— $38^{\circ}$ , 25 N.  $26^{\circ}$ , 32 E.

**Corfu.** the ancient *Cythera*, one of the Ionian Islands, to the E. of the Morea. Pop. 24,500.— $38^{\circ}$ , 13 N.  $21^{\circ}$ , 1 E.

**Coron.** the ancient *Sonion*, a promontory on the E. E. of Helles.— $37^{\circ}$ , 26 N.  $24^{\circ}$ , 2 E.

**Cephalonia.** the ancient *Coryra*, one of the Ionian Islands, off the coast of Albania. It is of considerable political importance, as being the key of the Adriatic; and is the first in size, though only the second in size, of the Ionian Islands. Pop. 74,134.

**Lepanto.** the capital of the above island. Pop. 25,500.— $38^{\circ}$ , 31 N.  $26^{\circ}$ , 31 E.

**Corinth.** one of the most distinguished cities of ancient Greece, now little more than a village, situated over the isthmus of Corinth. Pop. 350.

**Corinth Gulf.** it, anciently called the Gulf of Menecius, is the E. W. of the Morea.

**Coron.** a fortified seaport in the Morea, on the W. side of the Gulf of Corinth. Pop. 5500.— $37^{\circ}$ , 45 N.  $21^{\circ}$ , 53 E.

**Cyclades.** a group of islands in the Archipelago, about 38 in number, famous for their rich and varied scenery. Pop. 124,234.

**Egean Sea.** Gulf of the Serenic Sea, of the ancients, is the N. E. of the Morea.

**Euboea.** an island in the Gulf to which it gives name. Pop. 45,000.

**Eretria.** the ancient *Chalcis*, a fortified seaport, the capital of Euboea, on the Eurypus. Pop. 5500.— $38^{\circ}$ , 22 N.  $22^{\circ}$ , 26 E.

**Euboea or Negropont,** an island separated from Helles by the channel of Taenarum, the ancient *Eurypus*, remarkable for the irregularity of its form. Euboea is 165 miles long and 21 broad, and is connected with the mainland by a bridge across the channel of Taenarum. Pop. 77,362.

**Eurymachus or Vellus,** a river of the Morea, which flows into the Gulf of Epidauria.

**Galea's,** Cape, the E. W. extremity of the Morea.— $36^{\circ}$ , 43 N.  $21^{\circ}$ , 22 E.

**Helicon.** called also *Zagora*, a mountain in Helles, N. of the Gulf of Lepanto, celebrated in ancient mythology as a favourite haunt of the Muses.

**Helles or Northern Greece,** an extensive province, containing the monarchies of Acarnania and Ætolia, Phthiotia and Phocia, Attica and Boeotia. It is about 150 miles in length and forty in breadth, and abounds in interesting remains of antiquity. Pop. 255,000.

**Hydra,** a small rocky island off the E. coast of the Morea. Pop. 20,000. On its N. side is an important town of the same name. Pop. 12,000.

**IONIAN ISLES,** a group off the coasts of Albania and Greece, consist of Corfu, Zante, Cephalonia, Ithaca, Santa Maura, Paxos, Corcyra. Total area, 3441 sq. miles. Pop. 251,712. In 1835 they were erected into a republic under the protection of Britain, and in 1834 were re-united to Greece.

**Ithaca or Tæaki,** one of the above islands, to the N. E. of Cephalonia. Homer has given it celebrity as the kingdom of Ulysses. Pop. 11,000.— $38^{\circ}$ , 22 N.  $24^{\circ}$ , 43 E.

**KOLOKYTHIA,** Gulf of, anciently called the Gulf of Laconia, is the E. of the Morea.

**LEPANTO,** the ancient *Nepactus*, a small seaport in Helles, at the entrance of the Gulf of Laconia. Pop. 2000.— $37^{\circ}$ , 23 N.  $21^{\circ}$ , 53 E.

**Lepanto.** Gulf of, anciently the Gulf of Corinth, an arm of the Ionian Sea, about 70 miles in length. It separates Helles from the Morea.

**Livadia,** the ancient *Liondia*, a town in the monarchy of Attica and Boeotia: it was ruined by the war of independence, and is now an unimportant place. Pop. 5500.

**MAINA,** a mountainous district in the E. part of the Morea, inhabited by a brave and hardy people.

**Maler or St. Angelo.** Cape, the E. E. extremity of the Morea.— $36^{\circ}$ , 25 N.  $22^{\circ}$ , 12 E.

**Matapan's,** Cape, the most southerly point of the Morea, and except Tarifa in Spain, of the continent of Europe. It was the *Tenarum Promontorium* of the ancients.— $36^{\circ}$ , 23 N.  $22^{\circ}$ , 20 E.

**Micra,** an island in the Archipelago, one of the Cyclades. Pop. 9500.

**Mith,** the ancient *Mise*, a small island in the Archipelago. Its soil is volcanic and extremely fertile. Pop. 3500.

**Missolonghi,** a fortified town in Helles, to the W. of Lepanto, is the monarchy of Attica and Boeotia.



Here the poet Lord Byron died, on 19th April 1824, while promoting the cause of Grecian liberty. Pop. 6059.—38, 22 N. 21, 26 E.

More'a, the ancient *Peloponnesus*, a peninsula united to Northern Greece by the Isthmus of Corinth. It is divided into five nomarchies, Achaia and Elis, Messenia, Laconia, Argolis and Corinth, and Arcadia. Its length is about 140 miles, and its breadth 120; its area is 9000 square miles. It is famed for the beauty of its scenery and for its classical interest. Pop. 552,414.

NAU'PLIA or Nap'oli, Gulf of, the *Argolic Gulf* of antiquity, on the E. of the Morea.

Nau'plia or Nap'oli di Roma'nia, a fortified seaport near the head of the Gulf of Nauplia. Pop. 5000.

Navari'no, a seaport in the S. W. of the Morea, nomarchy of Messenia, with a fine harbour. Here, in October 1827, the Turkish and Egyptian fleets were destroyed by the allied squadrons of Britain, France, and Russia. Pop. 2000.

Nax'ia, a fertile island in the Archipelago, E. of Paros; it is the largest of the Cyclades. Pop. 19,912.

Ni'o, Island, the ancient *Ios*, one of the Cyclades, in which, it is said, Homer died about the year 900 B.C. Pop. 3700.

PARNAS'SUS or Liakura, a celebrated mountain of Hellas, and the highest in Greece, being 8068 feet above the sea. According to the ancients, it was the favourite resort of Apollo and the Muses. Near Castri, on its S. slope, still flows the Castalian spring.

Pa'ros, an island in the Archipelago, nearly in the centre of the Cyclades, famed for its quarries of fine white marble. Pop. 6000.

Pa'tras, a seaport in the N. W. of the Morea, nomarchy of Achaia and Elis, beautifully situated on an eminence near the entrance of the Gulf of Lepanto. Pop. 29,000.

Pax'o, one of the Ionian Islands, to the S. of Corfu. Pop. 5009.—39, 13 N. 20, 9 E.

Piræ'us, the port of Athens, and about 5 miles S. W. of that city. P. 6264.

Po'ros, the ancient *Calauria*, an island in the Gulf of Egina, separated from the Morea by a narrow channel. Pop. 7000.

ROU'FIA, the ancient *Alpheus*, a

river of the Morea, which falls into the Mediterranean Sea.

SAL'AMIS or Kuluri, an island in the Gulf of Egina, where the Greeks gained a memorable naval victory over the Persians, B.C. 480. Pop. 5000.—37, 57 N. 23, 32 E.

Salo'na, the ancient *Amphissa*, a town in Hellas, nomarchy of Phthiotis and Phocis, near Mount Parnassus. Pop. 6000.

San'ta Mau'ra, the *Leucadia* of the ancients, one of the Ionian Islands. Pop. 20,797.—38, 50 N. 20, 42 E.

San'torin, the ancient *Thera*, an island in the Archipelago, of volcanic origin. Pop. 13,063.

Skil'lo, Cape, a promontory in the E. of the Morea.—37, 28 N. 23, 32 E.

Sky'ro, an island in the Archipelago, E. of Eubœa. Pop. 2630.

Spar'ta (New) or Mistra, a town in the Morea, nomarchy of Laconia, near the site of ancient Sparta. Pop. 6700.

Spez'zia, an island in the Archipelago, at the entrance of the Gulf of Nauplia. Pop. 9843. The town of Spezzia is on the N. E. shore. Pop. 3000.

Sy'ra, an island in the Archipelago, one of the Cyclades, a place of commercial importance. Pop. 27,000.—37, 30 N. 24, 55 E. Syra, the capital, is on the E. shore. Pop. 14,000.

TALAN'TA, a town in Hellas, near the channel of the same name which separates Eubœa from the mainland. Pop. 5000.

Tay'getus, a mountain in the Morea; its loftiest summit is 7903 feet high.

Thebes, a town in Hellas, nomarchy of Attica and Boeotia, on the site of the ancient city of the same name. Pop. 9000.

Ti'no, an island in the Archipelago, one of the Cyclades. Pop. 16,000.

Tripolit'za, a town in the centre of the Morea, nomarchy of Arcadia, in a narrow vale at the foot of Mount Mænalus. Pop. 7441.—37, 30 N. 22, 22 E.

ZAN'TE, the ancient *Zacynthus*, one of the Ionian Islands, on the S. of Cephalonia. Pop. 39,693.

Zan'te, the capital of the above island, on its eastern shore. Pop. 25,000.—37, 47 N. 20, 54 E.

Ze'a, the ancient *Ceos*, one of the Cyclades, near Cape Colonna. Pop. 5000.

## RUSSIA IN EUROPE

Is bounded N. by Norway and the Arctic Ocean; W. by Sweden, the Baltic, Prussia, Austria, and Turkey; S. by Turkey, the Black Sea, and Mount Caucasus; E. by the Caspian Sea, the River Ural, and the Ural Mountains, the last separating it from Asiatic Russia. It contains about 2,142,504 square miles. The population exceeds 64,000,000.\*

**DIVISIONS.**—Russia in Europe (exclusive of Finland and Poland) consists of 51 governments and territories. The governments of Perm and Orenbourg are partly in Europe and partly in Asia. The government of Stavropol, although lying on the European side of the Caucasus, is ranked by the Russians, for administrative purposes, among the provinces of Asiatic Russia.

### *In the North.*

Governments.	Chief Towns.
Olonetz.....	Petrozavodsk, Olonetz.
Archangel.....	Archangel.
Vologda.....	Vologda.

### *In the North-West.*

Novgorod... ..	Novgorod.
St Petersburg or Ingria.....	ST PETERSBURG, Cronstadt.
Esthonia.....	Revel.
Livonia.....	Riga, Dorpat.
Pskov (Pleskow)	Pskov.
Vitebsk.....	Vitebsk.
Courland.....	Mittau.
Wilna.....	Wilna.

### *In the West.*

Mohilev.....	Mohilev.
Minsk.....	Minsk.

### *Governments. Chief Towns.*

Grodno.....	Grodno, Bialystok.
Kowno.....	Kowno.
Volhynia.....	Jitomir.

### *In the Centre.*

Kostroma.....	Kostroma.
Jaroslav.... ..	Jaroslav.
Tver (Twer)...	Tver.
Smolensk.....	Smolensk.
Moscow.....	Moscow, Borodino
Vladimir.....	Vladimir.
Nijni-Novgo- rod.....	Nijni-Novgorod.
Tambov.....	Tambov.
Riazan.....	Riazan.
Tula.....	Tula.
Kaluga.....	Kaluga.
Orel.....	Orel.
Tchernigov...	Tchernigov.
Kursk.....	Kursk.
Voronetz.....	Voronetz.

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\* If we except the British empire, the Russian is the most extensive in the world, occupying a large portion of Europe and all the northern part of Asia. It stretches from the Baltic Sea to the Pacific Ocean, from 18° to 190° E. longitude,—a space of more than 5000 miles, and comprehends about 7,770,000 square miles. It embraces above one-half of Europe, nearly one-third of Asia, and more than one-seventh of the habitable globe. Its European territory is peopled by above sixty-four millions of inhabitants; nearly twenty millions more are found in its Asiatic dominions; and even America contains fifty or sixty thousand Russian subjects. Altogether its population, as recently estimated, amounts to eighty-four millions.

<i>In the East.</i>		Governments.	Chief Towns.
Governments.	Chief Towns.	Poltava.....	Poltava.
Perm.....	Perm.	Kiev.....	Kiev.
Orenbourg.....	Orenbourg.	Podolia.....	Kaminiec.
Oufa.....	Oufa.	Bessarabia.....	Kichennev, Bender, Akerman.
Viatka.....	Viatka.	Kherson.....	Kherson, Odessa.
Kazan.....	Kazan.	Ekaterinoslav ...	Ekaterinoslav.
Simbirsk.....	Simbirsk.	Taurida, with	
Samara.....	Samara.	the Crimea ....	Simferopol.
Penza.....	Penza.	Country of the	
Saratov.....	Saratov.	Don Cossacks.	Tcherkask.
<i>In the South.</i>		Astracan.....	Astracan.
Kharkov.....	Kharkov.	Stavropol.....	Stavropol.

Finland is divided into eight governments, the principal towns in which are Helsingfors, Abo, Viborg, and Uleaborg. Poland (or, according to the modern Russian name, the Vistula Province) embraces five governments, the chief towns being Warsaw and Lublin.

**ISLANDS.**—In the Baltic, Aland, Dago, Oesel. In the Arctic Ocean, Kolguev, Waigatz, Nova Zembla, Spitzbergen.

**GULFS AND BAYS.**—Gulfs of Bothnia, Finland, Riga, Kandalask, Waranger, Archangel Bay, Onega Bay.

**MOUNTAINS.**—Ural Mountains, Valdai Hills.

**LAKES.**—Ladoga, Onega, Peipus, Ilmen, Enara.

**RIVERS.**—Volga, Don, Dnieper, Dniester, Bog, Ural, Oka, Kama, Kuban, Terek, Vistula, Niemen, Southern Dwina, Neva, Northern Dwina, Petchora.

#### REMARKS.

European Russia extends from 40° 20' to 70° N. lat., and from 18° to 60° 45' E. long. Its length, from the southern extremity of the Crimea to the Arctic Ocean, is about 2000 miles; its breadth, from the Baltic to the Ural Mountains, on the parallel of 56°, is 1500 miles. Of this extensive empire, Finland was acquired from Sweden in 1809; Bessarabia from Turkey in 1812. The country to the west of the rivers Dwina and Dnieper, including Courland, Wilna, Grodno, Minsk, Mohilev, Volhynia, Kiev, and Podolia, formerly belonged to Poland. The present Kingdom of Poland, the sovereignty of which was assigned to Russia by the Congress of Vienna in 1815, now forms an integral part of the Russian empire.

European Russia may be considered one huge plain. On

its eastern frontier, indeed, the vast chain of the Ural Mountains stretches nearly from the Arctic Ocean to the Caspian, rising in some places to the height of 6400 feet; and in Lapland and the Crimea there are some mountain-tracts. To the east and south of St Petersburg, the Valdai Hills form an extensive table-land from which the principal rivers of Russia take their rise; and so level is the country through which they flow, that their course is extremely tranquil. A distinguishing feature in southern Russia is its *steppes*—vast plains chiefly of sand, and destitute of wood, except here and there a stunted birch.

The climate of Russia is much colder than that of other European countries under the same parallels of latitude; and the cold is observed to increase as we travel eastward. For this peculiarity, various causes have been assigned,—distance from the ocean, the vast tract of land traversed by the north and east winds, and the dreary uncultivated surface of the country, a great proportion of which is covered with forests, lakes, and marshes. The summer-heat, however, is in general greater than in other countries under the same parallels.

Barley, oats, and rye, are the principal grains of the northern provinces; in the middle and southern provinces, wheat is raised in great abundance. The meadows on the Volga, the Don, and some of the other rivers, are luxuriant in natural grasses. Hemp and flax are cultivated on the strong soils; tobacco and maize in the south, chiefly in the Crimea. The fruits vary with the latitude and climate. Apples, plums, and cherries are common in the central provinces; peaches and melons in the southern; and in Taurida and the Crimea, grapes, figs, almonds, and pomegranates. In the centre of Russia there are extensive forests; pine, fir, and birch, abound in the northern provinces.

The domestic animals common in other parts of Europe are found in Russia; and such is the extent of its territory, that the camel and the rein-deer, animals of opposite climates, are both domesticated within its limits. Among the wild animals may be enumerated the bear, the wolf, the lynx, the chamois, the antelope, the elk, the beaver, the ermine, the marten, the musk-deer, and the musk-rat. The rivers and the lakes swarm with fish.

The most extensive mines of Russia are in the Ural Mountains. In Perm there are valuable mines of gold, copper, and iron;

of the last metal there are also considerable mines in the neighbourhood of Moscow. Platinum was discovered in the Urals in 1823, and has been worked ever since. Salt abounds in several provinces; and springs of naphtha occur in the district of Perekop and in the Isle of Taman in Taurida.

Agriculture is still in a rude state, but manufactures are rapidly extending. The principal are linens, cottons, silks, glass, hardware, leather, soap, paper, snuff, earthenware, jewellery. The inland traffic is conducted, in a great measure, by means of yearly fairs, of which the most celebrated is that of Nijui-Novgorod. Trade is greatly promoted by the extensive system of river and canal navigation. A water communication has been opened between St Petersburg and Astracan, a distance of above 3000 miles; the Volga is united with Lake Ladoga; and by a third system of canals the Northern Dwina and Archangel have been connected with the river Volga and St Petersburg; hence there is a continuous navigation from the Caspian to the Baltic, and from St Petersburg to the White Sea. A railway from St Petersburg to Moscow, about 400 miles long, and another from Warsaw to Kosel, in Prussian Silesia, are open for traffic. There are also lines from St Petersburg to Warsaw, from Moscow to Kaffa, from Moscow to Nijni-Novgorod, etc.

The principal articles of export are corn, timber, hemp, flax, tallow, pitch, tar, leather, wool, and furs. The chief imports are sugar, coffee, cotton, woollens, silks, dye-stuffs, tea, wine, and brandy.

The great bulk of the population are of the Slavonian or Russian race, with Poles, Fins, Lettons, and Armenians. The religion is that of the Greek Church, with toleration to all other sects. The religious ceremonies, particularly on festival-days, are splendid and imposing. The government is an absolute monarchy, scarcely to be distinguished from a military despotism,—the only restraint on the will of the emperor, or autocrat, being the influence of the nobility and clergy. Until March 1861, when they were emancipated by an imperial decree, the great body of the people were in a state of vassalage; the peasants, or boors, being the serfs of the proprietors on whose lands they were born. The resources of Russia, were they less scattered and better managed, would be very great. Its public revenue, however, is only about £66,000,000;

and it is burdened with a debt of £282,000,000. The number of the Russian army is estimated at about 600,000 men. As soldiers, the Russians possess in an eminent degree the virtues of obedience and fortitude. Under good officers they would be almost invincible; and their discipline has of late years been greatly improved.

Education, to which the attention of government has latterly been directed, is still much neglected throughout the empire. By an imperial ukase issued in 1802, a plan was prescribed somewhat resembling the parochial schools of Scotland; but it has never been rendered effective. There are six universities, three lyceums, and twenty-seven military schools.

The nobility live in good style; but there is still a rudeness in their magnificence characteristic of a half-barbarous state. They are, however, a social and hospitable people.

#### EXERCISES.

How is European Russia bounded? What is its extent in square miles? What is the amount of its population? How many governments and territories does it contain? How many of them are partly in Asia? What government, lying in Europe, is ranked for administrative purposes among the provinces of Asiatic Russia? Name the governments in the north. Name those in the north-west. Name those in the west. Name those in the centre. Name those in the east. Name those in the south. What are the chief towns which have not the same names as the governments? How many governments are in Finland and Poland? What islands belong to Russia? Name its mountains. What are its principal lakes? Name its chief rivers.

Where are Kaminiec, Odessa, Borodino, St Petersburg? etc. Where are Lake Ladoga, Peipus, the Ural Mountains, Lake Ilmen? Trace the Volga, the Dnieper, the Petchora, the Dwina, etc.

Between what degrees of latitude and longitude is Russia situated? What are its length and breadth? From what country and at what time was Finland acquired? When and from what country was Bessarabia acquired? What part of Russia formerly belonged to Poland? What is the general aspect of Russia? In what part of it do chains of hills occur? From which of those chains do the principal rivers take their rise? What is the distinguishing feature in southern Russia?

What is peculiar in the climate of Russia? What causes have been assigned for this peculiarity? Is the summer heat great? What are the principal productions of the northern, middle, and southern provinces? Where do luxuriant meadows occur? Where are hemp and flax, tobacco and maize, cultivated? What varieties of fruits are found in the different regions? What trees abound in the north? What domestic animals in opposite parts of Russia afford a proof of its vast extent of territory? Mention some of the wild animals. Where do the most extensive mines

occur? Where and when was platinum discovered? Is salt common in any part of Russia? Where do springs of naphtha occur?

In what state are the manufactures of Russia? What are the principal articles of manufacture? What facilitates the internal trade? How is a communication formed between the Baltic and the Caspian? What railways are opened? What are the principal articles of export? What are the chief imports? What races form the chief bulk of the population? What is the established religion? Are other religions tolerated? What is the state of the ecclesiastics? What is remarkable about their religious ceremonies? What is the nature of the government? What is the only restraint on the will of the sovereign? When did the great body of the people cease to be serfs? What is the state of the resources of this empire? What is the amount of its revenue and debt? What is the numerical amount of its army? What are the characteristic qualities of Russian soldiers?

In what state is education in Russia? What was the plan prescribed for its improvement by the imperial ukase of 1802? How many universities are there? In what style do the nobility live? For what social virtue are the Russians remarkable?

#### DESCRIPTIVE TABLE.

**A'BO**, a seaport of Finland, on the promontory formed by the Gulfs of Bothnia and Finland. P. 17,208.—60° 27' N. lat. 22° 17' E. long.

**Ak'erma**n, a strongly fortified seaport of Bessarabia, near the junction of the Dniester with the Black Sea. Pop. 29,343.—46, 9 N. 30, 21 E.

**A'land**, the principal island of a group at the entrance of the Gulf of Bothnia, 18 miles long and 14 broad. It was captured in 1854 by the British and French, who destroyed the fortifications at Bomarsund.

**Al'ma**, a river in the Crimea, famous for the victory over the Russians, gained upon its banks, by the Anglo-French army, in Sept. 1854.

**An'apa**, a maritime fortress on the Circassian shore of the Black Sea, about fifty miles south-east from Enikalè. It was dismantled and evacuated by the Russians on the approach of the Anglo-French fleet in June 1855. Pop. 3000.

**Ar'abat**, a fortress on the northern shore of the Crimea. It gives name to a bay in the Sea of Azov, and to the remarkable strip or tongue of land which divides the Sea of Azov from the Siwash or Putrid Sea.

**Archangel**, a government in the N., including Nova Zembla. It has extensive fisheries. It contains 336,934 square miles. Pop. 281,244.

**Archangel**, the capital of the gov-

ernment of the same name, and the principal commercial city in the N. of Russia, about 40 miles from the junction of the Northern Dwina with the White Sea. Pop. 24,000.—64, 32 N. 40, 44 E.

**Astracan'** or **Astrakhan'**, a government in the S. E., lying along the shores of the Caspian Sea. The soil, except on the banks of the Volga, is barren. Extent, 83,997 square miles. Pop. 453,575.

**Astracan'**, the capital of the government of the same name, stands on an island in the Volga, about 50 miles from the mouth of that stream. It has considerable trade, and large fisheries on the Volga and Caspian. Pop. 45,000.—46, 18 N. 48, 5 E.

**Az'ov**, Sea of, the *Fulus Mæotis* of the ancients; it communicates with the Black Sea by the Straits of Enikalè or Kertch, the ancient *Oimmerian Bosphorus*.

**BALAKLA'VA**, a harbour near the southern extremity of the Crimea. In September 1854, it was seized by the British, who afterwards made a railway from it to their camp before Sebastopol. Near it was fought a battle in October 1854, in which 600 British light cavalry charged a Russian army. Pop. 2600.

**Ben'der**, formerly a strongly fortified town in Bessarabia, on the Dniester. Pop. 22,448.

**Beř'diansk** or **Berdian'ski**, a town with a good harbour, at the mouth of the river Berda, on the northern shore of the Sea of Azov. Pop. 11,000.

**Berdi'tchew**, a town in the province of Volhynia, with considerable trade. Pop. 53,169.

**Bessara'bia**, a province between the Pruth and the Dniester, ceded by Turkey in 1812. It contains 13,309 square miles. Pop. 1,026,346.

**Bog** or **Bug**, a river which issues from a lake in the N. of Podolia, flows through that government and Kherson, and falls into the estuary of the Dnieper.

**Borodi'no**, a village in the government of Moscow, near the river Moskva, memorable for a desperate battle fought here, on 7th Sept. 1812, between the Russians and French, when about 30,000 fell on each side.

**CAU'CASIA**, including Circassia, a lieutenantancy extending from the Sea of Azov to the Caspian, and containing all the Russian territory to the south of the rivers Terek and Kuban, which are regarded by the Russians as the southern boundary of Europe. The northern part of the lieutenantancy is occupied by the great mountain-range of Caucasus. The mountaineers of Caucasus, especially the Circassians, are remarkable for their elegance of person; the beauty of the Circassian women has long been proverbial in the east. Extent, 117,427 square miles. Pop. 4,157,917.

**Cau'casus Mountains**. See Descriptive Table of Asia.

**Choc'zim**, or **Kho'tin**, a strongly fortified town in Bessarabia, on the Dniester; it was ceded by the Turks in 1812. P. 12,931.—48, 28 N. 26, 30 E.

**Circas'sia**, a region of Caucasus, bordering on the Black Sea, inhabited by warlike tribes who long resisted the arms of Russia.

**Cour'land**, a government in the N. W., separated from Livonia by the Southern Dwina. It is fertile, but ill cultivated. Area, 10,365 square miles. Pop. 573,855.

**Crime'a** or **Crim Tartary**, the *Chersonesus Taurica* of the ancients, a peninsula in the S. of Taurida, washed by the Black Sea and the Sea of Azov, and joined to the mainland by the Isthmus of Perekop. It is divided by the river Salgir into two parts, the northern and larger being barren and thinly peopled, the southern being traversed by a range of

mountains enclosing beautiful valleys, rich in all the productions of the south. Pop. about 200,000.

**Cron'stadt**, a seaport and strong fortress in the government of St Petersburg, at the S. E. extremity of a small island in the Gulf of Finland. It commands the passage of St Petersburg, from which it is distant 20 miles, and is the principal station of the Russian navy. It was founded by Peter the Great, who employed 300,000 men in the work. Pop. 48,413.—59, 59 N. 29, 46 E.

**DA'GO**, an island at the entrance of the Gulf of Finland, with a light-house near Dagerort, its chief village. Pop. 10,000.—58, 55 N. 22, 12 E.

**Dnieper** (*Nee'per*), the ancient *Borysthenes*, a large river which rises in the government of Smolensk, and, after a winding course, falls into the Black Sea below Kherson.

**Dniester** (*Nees'ter*), the ancient *Tyras*, a large river which has its source in the Carpathian Mountains in Austrian Galicia, enters Russia at Choczim in Bessarabia, and falls into the Black Sea near Akerman.

**Don**, the *Tanais* of the ancients, a large river which rises in the government of Tula, and, after a winding course, empties itself by several channels into the Sea of Azov.

**Don Cos'sacks**, a tribe whose territory extends along the lower course of the Don. It contains 61,942 square miles. Pop. 949,682. The greater part of the male inhabitants are cavalry soldiers, possessing their lands as the price of their service.

**Dor'pat**, a town of Livonia, with a university (the oldest in Russia), founded in 1632. Pop. 13,826.

**Dwi'na**, Southern, a river which issues from the Valdai Hills, and flows into the Gulf of Riga. It is navigable through nearly its whole course, and communicates with Lake Ladoga and St Petersburg by a canal.

**Dwi'na**, Northern, a large river, formed by the junction of the Soukhona and the Joug, in the government of Vologda; it falls by several channels into the White Sea, below Archangel.

**EKA'TERINOSLAV'**, a government N. of Taurida, containing 25,335 square miles. Pop. 1,204,751.

**Eka'terinoslav'**, the capital of the above government, on the Dnieper, with considerable woollen manufactures. Pop. 19,968.



En'ara, a lake in Russian Lapland, containing numerous islets.

Enik'ale, Straits of, connecting the Black Sea and the Sea of Azov. See KERTCH.

Estho'nia, a government extending along the S. shore of the Gulf of Finland. It contains 7758 square miles. Pop. 313,119.

Eupato'ria, formerly called Koslov, a seaport on the western shore of the Crimea. In the Bay of Kalamita, which lies to the south of it, the Anglo-French army landed in September 1854. The town was afterwards fortified and occupied by the Turks, who repulsed an attack upon it by the Russians in February 1855. Pop. 6867.

FIN'LAND, an extensive country E. of Sweden, to which it belonged till the year 1809, when it was seized by the Russians. It is divided into eight governments, and contains 143,899 square miles. Pop. 1,798,909.

Fin'land, Gulf of, an arm of the Baltic extending to St Petersburg.

GENIT'CHI, a small seaport, on the narrow strait of the same name which connects the Siwash or Putrid Sea with the Sea of Azov.

Georgievesk', a fortified town in the government of Stavropol, on a tributary of the Kouma. Pop. 3000.

Grod'no, a government in the W., containing 14,528 square miles, and 894,194 inhabitants.

Grod'no, the capital of the above government, on the Niemen. Here Stanislaus, king of Poland, sought his last retreat, and finally abdicated his crown in 1797. Pop. 26,187.

HAN'GO and Hango Head, a harbour and promontory on the north of the Gulf of Finland. Here a British boat's crew, under a flag of truce, were killed or taken prisoners by the Russians in June 1855.

Hel'singfors, a seaport and strong fortress, the capital of Finland, on the Gulf of Finland. Pop. 22,645.—60, 11 N. 25, 0 E.

IL'MEN, a lake in the government of Novgorod. It is of a triangular form, and communicates with Lake Ladoga by the river Volkov and a canal.

Ink'ermann, a ruined town near the eastern termination of the harbour of Sebastopol. It gave name to an obstinate and bloody conflict between the Anglo-French and Russian armies on the 5th November

1854, when the Russians were beaten back with great loss.

JAROSLAV (Yaroslav'), a government traversed by the Volga, and surrounded by Vologda, Kostroma, Vladimir, Tver, and Novgorod. It contains 13,835 square miles. Pop. 969,642.

Jaroslav', the capital of the above government, on the Volga, the see of an archbishop, and the seat of an academy and theological college. It has extensive manufactures of silk, linen, and leather. Pop. 27,741.

Ji'tomir or Zy'tomir, the capital of Volhynia, on the Teterov. Pop. 38,407.—50, 10 N. 28, 45 E.

KAF'FA or Feodo'sia, a seaport on the E. coast of the Crimea. P. 8741.

Kal'amita Bay, a large inlet on the western shore of the Crimea, memorable as the landing-place of the Anglo-French army which invaded the Crimea in September 1854.

Kal'isch, a manufacturing city in Poland, on the Prosna. Pop. 13,537.

Kalu'ga, a government bounded by Moscow, Smolensk, Orel, and Tula. It has considerable trade and manufactures. Extent, 12,068 square miles. Pop. 964,796.

Kalu'ga, the capital of the above government, on the Oka. P. 34,668.

Ka'ma, a river which rises in Viatka, traverses Perm, and joins the Volga 24 miles below Kazan.

Kamin'iec or Kami'enez, the capital of the government of Podolia, near the Dniester. Pop. 20,699.

Kan'dalask, a gulf of the White Sea, stretching into Russian Lapland.

Kaz'an, a government to the S. of Viatka, inhabited by people who are chiefly of Tartar origin. Extent, 23,465 square miles. Pop. 1,607,122.

Kaz'an, the capital of the above government, on the Kazanka, near its junction with the Volga. It is the see of an archbishop, and the seat of a university founded in 1804. It has an extensive trade. P. 63,084.

Kertch, a seaport of the Crimea, on the Straits of Enikalè, or, as they are frequently called, the Straits of Kertch. It was captured by the British and French allies in May 1855. Pop. 21,414.

Kharkov' Charkov', or the U'kraine, a government S. of Kursk and E. of Poltava. It contains 20,731 square miles. Pop. 1,590,926.

Kharkov', the capital of the above government, on the small rivers

**Kharkov and Lapan.** Its monastic college was, in 1808, erected into a university. Pop. 52,056.

**Kaer'son, or Cher'son,** a government in the S. on the Black Sea, between the Dnieper and the Dniester. It contains 28,863 square miles. Pop. 1,330,138.

**Kaer'son,** the capital of the above government, on the right bank and near the mouth of the Dnieper. The philanthropic Howard died here in 1790, and is buried about four miles from the town, where a monument has been erected to his memory. Pop. 40,169.—46, 38 N. 32, 38 E.

**Kichinev',** the capital of the province of Bessarabia. Pop. 94,124.

**Kiev (Kioo'),** a government on the Dnieper. Its soil is fertile. Extent, 19,280 square miles. Pop. 2,012,085.

**Kiev (Kioo'),** the capital of the above government, on the right bank of the Dnieper. It is the see of an archbishop and the seat of a university founded in 1833. Pop. 68,424.—50, 27 N. 30, 27 E.

**Kolguev',** a dreary and thinly inhabited island in the Northern Ocean.

**Kostro'ma,** a government surrounded by Vologda, Viatka, Nijni-Novgorod, Vladimir, and Jaroslav. Extent, 30,508 square miles. Pop. 1,073,971.

**Kostro'ma,** the capital of the above government, on the Volga, near its junction with the Kostroma. P. 21,415.

**Kow'no,** a government on the Baltic, having Courland on the north, and the river Niemen on the south. It contains 15,937 square miles, and has a population of 1,052,164. The capital is Kowno. Pop. 23,937.

**Ku'ban,** a river which has its source in the Caucasus, and, flowing westward, divides into two branches, forming the island of Taman between the Sea of Azov and the Black Sea. The Russians regard the Kuban, on the west, and the Terek, on the east, as the boundary between Europe and Asia.

**Kuruk, or Coursk,** a government bounded by Orel, Voronetz, Kharkov, and Tchernigov. It contains 17,220 square miles. P. 1,827,068.

**Kursk,** the capital of the above government, near the Seim; it is one of the most ancient towns in the empire. Pop. 28,565.

**LA'DOGA,** Lake, surrounded by the governments of St Petersburg, Olonetz, and Viborg, is the largest

lake in Europe, being 120 miles long and 70 broad. It is connected by canals with Lake Ilmen and the Volga, so as to allow of passage by water from the Baltic to the Caspian.

**Libau',** a seaport in Courland. P. 9970.—56, 31 N. 20, 56 E.

**Livo'nia,** a maritime government, having Esthonia on the N. and Courland on the S. It exports a considerable quantity of corn. Extent, 17,472 square miles. Pop. 925,275.

**Lovi'sa,** a small town on the northern shore of the Gulf of Finland. Its harbour was defended by a strong fortress, which was blown up by the British fleet in July 1855, when the town was accidentally burned.

**Lub'lin,** a town in Poland, with considerable trade. It is the capital of a government of the same name. Pop. 21,814.

**MAR'TOPOL, or Marian'opol,** a maritime town at the mouth of the Kamisus, on the N. shore of the Sea of Azov. Pop. 4600.

**Minsk,** a government, extending from the Dwina on the N. to Volhynia on the S. It is a level district, with immense forests. Extent, 34,083 square miles. Pop. 1,001,335.

**Minsk,** the capital of the above government, and the see of an archbishop, on the Swistocz. P. 30,149.

**Mitt'au,** the capital of the government of Courland, near the Gulf of Riga. Pop. 22,745.

**Mo'hilev, or Mo'ghilev,** a fertile government to the E. of Minsk. Extent, 18,586 square miles. P. 924,080.

**Mo'hilev,** the capital of the above government, on the Dnieper. It has an extensive trade, and is the seat of a Greek and of a Roman-catholic archbishop. Pop. 48,205.—53, 50 N. 30, 24 E.

**Mos'cow,** a central government, among the least extensive but most populous provinces in the empire. Its trade and manufactures are very considerable. It contains 12,405 square miles. Pop. 1,564,240.

**Mos'cow (Russ. Moskva),** one of the capitals of the empire, the principal emporium of its internal commerce, and the seat of a university founded in 1759. It stands on the navigable river Moskva. Almost the whole city was reduced to ashes by its inhabitants, when it was occupied by the French army in September 1812. It has been since rebuilt, and in some parts with increased splen-

dour. The most remarkable part of the city is the Kremlin, which contains the ancient palace of the czars. Pop. 351,609.—55, 45 N. 37, 33 E.

**NARVA**, a town in the government of St Petersburg. Here the Swedes under Charles XII. defeated the Russians in 1700. Pop. 5921.

**Ne'va**, a river which issues from Lake Ladoga, and, after a course of 35 miles, empties itself by three mouths into the Gulf of Finland.

**Nicolaiev'**, a seaport of Kherson, on the Bog. Pop. 64,561.

**Niemen**. See Descriptive Table of PRUSSIA.

**Nij'ni-Nov'gorod**, a central government, E. of Vladimir, containing 19,406 square miles. Pop. 1,285,196.

**Nij'ni-Nov'gorod**, the capital of the above government, at the confluence of the Oka with the Volga. It is a place of great internal trade, and is famed for its yearly fair, one of the largest in Europe. Pop. 31,543.

**No'va Zem'bla**, two large islands in the Arctic Ocean, separated from the mainland by Waigatz Island and Straits.

**Nov'gorod**, a government to the E. of St Petersburg. Extent, 45,940 square miles. Pop. 1,006,293.

**Nov'gorod**, the capital of the above government, once the most flourishing city in the N. of Europe, in a beautiful plain at the N. extremity of Lake Ilmen. Pop. 17,665.

**ODES'SA**, a thriving city and seaport in the government of Kherson, on the Black Sea, between the rivers Dniester and Bog. It has a great export trade, especially in corn. Pop. 118,970.—46, 29 N. 30, 43 E.

**Oe'sel**, an island at the mouth of the Gulf of Riga. Pop. 46,000.

**O'ka**, a river which rises in the government of Orel, and falls into the Volga at Nijni-Novgorod.

**Ol'onetz**, a government south of Archangel, containing 56,896 square miles. Pop. 296,593.

**Ol'onetz**, a town in the above government, near Lake Ladoga; here Peter the Great constructed his first dockyard. Pop. 2700.

**One'ga**, a lake in Olonetz, 130 miles long, and from 30 to 45 broad. It is connected by the river Swir with Lake Ladoga.

**One'ga**, a river which rises in the S. E. of Olonetz, and flows northward into the Gulf of Onega.

**O'renbourg**, a government in the

S. E., between Oufa and Astracan, extending across the Ural Mountains into Asiatic Russia. Extent, about 45,000 square miles. Pop. 578,371.

**O'renbourg**, a fortified city, capital of the above government, on the Ural. Pop. 27,593.—51, 45 N. 55, 6 E.

**O'rel**, a government in the interior, S. of Tula and Kaluga. Extent, 18,061 square miles. Pop. 1,583,619.

**O'rel**, the capital of the above government, on the Oka, with considerable trade. Pop. 34,973.

**Oufa (Oo'fa)**, a government in the S. E., between Perm and Orenbourg. Extent, about 58,500 square miles. Pop. 1,265,000.

**On'fa**, the capital of the above government, at the junction of the Oufa and Bielaia. Pop. 16,460.

**PEI'PUS**, Lake, surrounded by the governments of St Petersburg and Livonia. It is 50 miles long and 35 broad, and communicates with the Gulf of Finland by the river Narva.

**Pen'za**, a government in the E., having Nijni-Novgorod on the N. and Saratov on the S. It contains 14,465 square miles. Pop. 1,179,080.

**Pen'za**, capital of the above government, near the Sura. Pop. 27,263.

**Per'ekop**, a small town in the Taurida, on the isthmus connecting the Crimea with the continent. P. 3962.

**Perm**, a government, stretching across the Ural Mountains into Asiatic Russia, containing 79,225 square miles. Pop. 2,138,548.

**Perm**, the capital of the above government, and the seat of an archbishop, on the Kama. Pop. 19,240.

**Pernau'**, a seaport of Livonia, on the Gulf of Riga. Pop. 6690.—53, 22, N. 24, 32 E.

**Petcho'ra**, a large river which rises in the Ural Mountains, and falls into the Arctic Ocean.

**Pe'tersburg, St.**, a government at the eastern extremity of the Gulf of Finland, containing 17,093 square miles. Pop. 1,174,174.

**PE'TERSBURG, St.**, the capital of the above government and the metropolis of the empire. It is situated at the confluence of the Neva with the Gulf of Finland. Founded by Peter the Great in 1703, Catherine II. made it the permanent residence of the court. It is one of the finest cities in Europe. It has a university, founded in 1819. Pop. 539,122.—59, 56 N. 30, 19 E.

**Petrozavodsk'**, the capital of the government of Olonetz, on Lake

Ouga; it has great iron-works. Pop. 800.

Podo'lia, a fertile government in Russian Poland, to the N. of Bessabia, containing 16,190 square miles. Pop. 1,888,857.

Pol'and, a large and fertile country between Russia and Germany. It was long an independent kingdom, but in 1772 Russia, Austria, and Prussia partitioned part of its territory; in 1793 a second, and in 1795 a third and final division was made. The present Kingdom of Poland originated in the grand duchy of Warsaw, formed by Napoleon I. in 1807, and assigned by the Congress of Vienna, in 1815, to the Emperor Alexander I., who erected it into a kingdom, with a representative constitution. After the unfortunate attempt of the Poles to regain their national independence in 1830, the constitution was suppressed. The kingdom is now incorporated with the Russian empire, and called the Vistula Province. Extent, 48,779 square miles. Pop. 5,100,000.

Polta'va, or Paltow'a, a government between Kiev and Kharkov, containing 18,775 square miles. Pop. 1,911,442.

Polta'va, or Paltow'a, the capital of the above government; here, in 1709, Charles XII. of Sweden was totally defeated by the Russians. Pop. 21,348.

Pskov (Ples'kow), a government in the N. W., between Livonia and Smolensk. Extent, 16,841 square miles. Pop. 718,907.

Pskov, the capital of the above government, at the confluence of the Velikaja and Pskov. Pop. 16,807.

Putrid Sea, or Si'wash, an irregular and shallow expanse of water on the northern shore of the Crimea, communicating by the Straits of Genitchi with the Sea of Azov, from which it is separated by the narrow strip of land called the "Tongue of Arabat."

REV'EL, the capital of the government of Esthonia, on a bay of the Gulf of Finland. It is a place of considerable trade, with an excellent harbour, and is strongly fortified. Pop. 29,434.—59, 26 N. 24, 44 E.

Riaz'an, a government east of Moscow, traversed by the river Oka, and containing 16,022 square miles. Pop. 1,418,288.

Riaz'an, the capital of the above

government, on the Oka, the see of an archbishop, and remarkable for its numerous churches. Pop. 22,279.

Ri'ga, an important city, the capital of the government of Livonia, on the Southern Dwina, 7 miles from the sea. It is strongly fortified, and in point of trade ranks next to St Petersburg. The chief exports are flax and hemp, corn, timber, and tallow. Pop. 102,043.—56, 57 N. 24, 6 E.

Ri'ga, Gulf of, an arm of the Baltic, between Courland and Livonia.

SAMA'RA, a government on the Volga, with a town of the same name; it was formed, in 1850, out of portions of the provinces of Simbirsk, Saratov, and Orenbourg, and contains 64,401 square miles. Pop. 1,690,779.

Sar'atov, a government in the S. E. Great part of it is barren, being impregnated with salt, and it contains a number of salt lakes. Extent, 31,244 square miles. Pop. 1,698,561.

Sar'atov, the capital of the above government, on the Volga; it has an active trade, chiefly with Moscow and Astracan. Pop. 84,391.

Sebas'topol, or Sevastop'ol, a seaport in the S. W. of the Crimea, famous for its siege by the British and French in 1854 and 1855, when the south side of the town, including the arsenal and docks, was taken and destroyed. Pop. 8218.

Sim'birsk, a government between Kazan and Saratov, traversed by the Volga. It contains 18,565 square miles. Pop. 1,183,312.

Sim'birsk, the capital of the above government, beautifully situated on the Volga. Pop. 24,837.

Simferopol', the capital of Taurida, a handsome town of the Crimea. Pop. 17,061.—44, 58 N. 34, 3 E.

Smolensk', a government W. of Moscow, containing 21,404 square miles, and 1,137,212 inhabitants.

Smolensk', an ancient walled city, the capital of the above government, on the Dnieper. Here, in 1812, the first important stand against the French was made by the Russians, who burned the town previously to their evacuating it. Its trade and manufactures are considerable. Pop. 23,001.—54, 48 N. 31, 58 E.

Spitzber'gen, a group of desolate islands, the most northern land hitherto discovered in the Eastern Hemisphere, extending from 70° to 81° N. lat.

**Stavropol'**, a government between the Caucasus on the south and Astracan and the Country of the Don Cossacks on the north. It is regarded for administrative purposes as in Asiatic Russia (in the lieutenantancy of Caucasus). It contains 51,617 square miles. Pop. 856,671. Its chief towns are Stavropol (pop. 17,863), and Georgievsk (pop. 3000).

**Sweaborg'**, a seaport and strong fortress in Finland; it was bombarded and greatly damaged by the Anglo-French fleet in August 1855. Pop. 4000.

**TAG'ANROG**, a fortified seaport on the N. shore of the Sea of Azov; its public buildings were destroyed by the Anglo-French fleet in June 1855. Pop. 42,304.—47, 12 N. 88, 42 E.

**Tam'an**, an island between the Black Sea and the Sea of Azov, formed by the two branches of the river Kuban.

**Tam'bov**, a government W. of Penza and Saratov, containing 25,272 square miles. Pop. 1,974,584.

**Tam'bov**, capital of the above government, and the see of a Greek bishop; it has considerable trade. Pop. 36,029.

**Tau'rida**, a government in the S., comprehending the Crimea and a considerable tract on the mainland N. and N. E. of that peninsula. Extent, 23,864 square miles. Pop. 615,001.

**Tcher'kask**, the capital of the Don Cossacks, on the Aksai, a branch of the Don; it is surrounded by water and marshes. Pop. 20,487.

**Tcher'nigov**, a fertile government N. of Poltava and E. of the Dnieper, containing 21,025 square miles. Pop. 1,487,372.

**Tcher'nigov**, the capital of the above government, on the Desna; it is the see of an archbishop. Pop. 10,628.—51, 30 N. 31, 20 E.

**Te'rek**, a river which rises in Mount Elburz, the highest peak of the Caucasus range, and flowing eastward enters the Caspian Sea. The Russians regard it as the boundary at this point between Europe and Asia.

**Tula (Too'la)**, a government S. of Moscow, containing 11,627 square miles. Pop. 1,152,470.

**Tu'la**, the capital of the above government, at the confluence of the *Tulitza* and *Oupa*, may be called the *Birmingham* of Russia. It has a *cannon-foundry*, and extensive manu-

factures of arms, hardware, and cutlery. Pop. 56,739.—54, 11 N. 87, 20 E.

**Tver (Twer)**, a government between Moscow and Novgorod, covered with forests. It contains 25,736 square miles. Pop. 1,518,077.

**Tver (Twer)**, the capital of the above government; it is a handsome city, on the road from St Petersburg to Moscow, at the confluence of the Tvertza and the Volga. Pop. 28,523.

**U'LEABORG**, a seaport of Finland, near the head of the Gulf of Bothnia. Pop. 7220.

**U'ral Mountains**, an extensive range which forms the boundary between European and Asiatic Russia. Several of the peaks rise to between 8000 and 9000 feet above the sea.

**U'ral**, a river which has its source in the above mountains, divides Europe from Asia, and flows into the Caspian Sea.

**VAIGATZ (Wai'gatz)**, an island in the Arctic Ocean, to the S. of Nova Zembla, separated from the continent by the Strait of Vaigatz.

**Val'dai Hills**, a range in the government of Novgorod and Tver, rising to the height of 1200 feet.

**Vasa (Wa'sa)**, a seaport of Finland, on the Gulf of Bothnia. Pop. 3629.

**Viat'ka**, a government in the E., between Kostroma and Perm, containing 54,771 square miles. Pop. 220,601.

**Viat'ka**, the capital of the above government, at the confluence of the Viatka and Chlinooka. Pop. 14,803.

**Vi'borg**, a fortress and seaport on the Gulf of Finland. Pop. 5509.—60, 42 N. 28, 46 E.

**Vistula**. See Descriptive Table of PRUSSIA.

**Vitebsk'**, a government to the E. of Courland, containing 17,009 square miles. Pop. 776,739.

**Vitebsk'**, the capital of the above government, at the confluence of the Southern Dwina and Viteba. Pop. 27,868.

**Vlad'imir**, a government to the E. of Moscow, containing 18,082 square miles. Pop. 1,216,619.

**Vlad'imir**, the capital of the above government. Pop. 12,948.

**Vol'ga (Wol'ga)**, the largest river in Europe, rises among the Valdai Hills near the frontier of Novgorod, and flows eastward till it reaches the city of Kazan, below which it is joined by the Kama; it then takes a

southerly direction, and, after separating into numerous branches, discharges its waters by 70 mouths into the Caspian. It is navigable through almost its whole course.

Volgsk, a town in the government of Saratov, on the Volga, with large manufactures of arms. Pop. 13,280.

Volhy'nia, a fertile government in Polish Russia, between Grodno and Podolia. Extent, 27,039 square miles. Pop. 1,602,715.

Volog'da, an extensive government S. of Archangel, containing 151,384 square miles. Pop. 974,723.

Volog'da, the capital of the above government, on the Vologda; it has an active trade and a number of manufactures. Pop. 18,984.

Vo'ronetz, a government N. W. of the Don Cossacks, containing 25,441 square miles. Pop. 1,988,113.

Vo'ronetz, the capital of the above government, at the confluence of the Voronetz and the Don; it has considerable trade. Pop. 40,967.

WAR'ANGER, a bay of the Arctic Ocean, between Swedish and Russian Lapland.

War'saw, the capital of Poland, finely situated on the Vistula. It suffered terribly in the sieges of 1794 and 1831. It has some handsome public buildings. Its university was suppressed in 1834. Pop. 243,512.—52, 13 N. 21, 0 E.

Wil'na, a government on the Baltic to the S. of Courland, containing 16,126 square miles. Pop. 899,993.

Wil'na, the capital of the government of the same name. It is the see of a Greek and a Roman-catholic bishop, and until 1832 was the seat of a university. Pop. 69,464.—54, 41 N. 25, 17 E.

## PRUSSIA

Is bounded N. by Denmark and the Baltic; W. by Holland, Belgium, and France; S. by Bavaria and Austria; E. by Russia. It contains 136,238 square miles. Its population is 24,043,902.

### Provinces.

### Chief Towns.

Prussia (Proper).....	<i>In East Prussia</i> , Königsberg, Tilsit, Memel: <i>In West Prussia</i> , Dantzic, Elbing, Thorn.
Pomerania .....	Stettin, Stralsund, Colberg.
Posen, or Prussian } Poland.....	Posen, Bromberg.
Silesia.....	Breslau, Glogau, Gorlitz.
Brandenburg .....	BERLIN, Potsdam, Brandenburg, Frankfort-on-the-Oder, Custrin.
Prussian Saxony.....	Magdeburg, Halberstadt, Halle, Erfurt.
Westphalia.....	Munster, Minden, Paderborn.
Rhenish Prussia.....	Cologne, Dusseldorf, Cleves, Bonn, Coblenz, Aix-la-Chapelle, Treves.
Hohenzollern.....	Hechingen, Sigmaringen.
Schleswig-Holstein ...	Schleswig, Kiel, Flensburg.
Lauenburg.....	Lauenburg, Ratzeburg.
Hanover.....	Hanover, Hildesheim, Gottingen.
Hesse-Cassel.....	Cassel, Marburg, Fulda.
Nassau.....	Weisbaden, Nassau, Dietz.
Frankfort .....	Frankfort-on-the-Main.

**ISLANDS.**—Rugen, Usedom, Wollin, Femern, Alsen, Syltoe.

**RIVERS.**—Rhine, Ems, Elbe, Vistula, Oder, Warta, Niemen or Memel, Pregel, Eyder.

**GULFS, ETC.**—Gulf of Dantzic, Gross Haff, Frische Haff, Curische Haff, Spirding See.

#### REMARKS.

Prussia extends from  $49^{\circ} 8'$  to  $55^{\circ} 50'$  N. lat., and from  $6^{\circ}$  to  $22^{\circ} 50'$  E. long. Its greatest length from east to west is about 720 miles; its breadth from north to south varies from 80 to 470 miles. It comprehends the north of Poland, the greater part of North Germany, with the southern portion of the peninsula of Jutland, and the provinces on the Rhine. Hohenzollern is encircled by Wurtemberg and Baden.

The greater part of Prussia is a level plain, with the Riesengebirge mountains in Silesia and the Harz in Saxony and Hanover. In general the soil is poor and sandy. In the eastern provinces the climate is cold; in the western it is warmer than that of England.

Agriculture is the chief source of the national wealth, and is pursued with skill and diligence in most of the provinces. Wheat, rye, oats, and barley are raised, both for home-consumption and for exportation. The vineyards of Rhenish Prussia are extensive and valuable. Silesia and Westphalia have long been noted for their linens, the weaving of which is the chief employment of the lower orders in these provinces, and to a considerable extent likewise in Pomerania. Woollen cloths and cotton goods are extensively manufactured, especially in the Rhenish provinces, at Elberfeld, Barmen, and Crefeld; and in other quarters of the kingdom the industry of the people has been successfully exerted in the manufacture of silk, leather, iron, copper ware, and cutlery. Cotton cloths and hardware are the only manufactures carried on in large factories,—woollens and linens being made by families in their own cottages.

Prussia in general is not rich in minerals; but in Hanover, in the mountainous district of the Harz, iron, copper, lead, coal, alum, saltpetre, and silver are found. The district of Hesse-Cassel also abounds in similar minerals. Salt-springs are plentiful in Prussian Saxony. Amber is met with in considerable quantities in several parts of Prussia Proper,—particularly near Pillau, on a neck of land formed by the Frische Haff.

In its rivers and canals Prussia has great advantages for internal trade ; and in its seaports on the Baltic foreign commerce is carried on with considerable activity. The chief exports are corn, wool, timber, linseed, Rhenish wine, flax, and linen. The principal imports are the colonial produce and the manufactures of Great Britain, and a free trade has also been opened up with other countries. The commercial league called the Zollverein, of which Prussia is the head, has been the means of establishing a free system of internal trade throughout Germany. An extensive system of railways has been for some time in operation, radiating from Berlin to the frontiers.

The form of government was long that of an hereditary monarchy, nearly absolute. In 1847, King Frederick William IV. granted a constitution, with an Upper and Lower House of Representatives. The established religion is Calvinistic and Lutheran Protestantism ; but the followers of other creeds are very numerous, and not only enjoy free toleration, but are admissible to all offices in the state.

Since the time of Frederick the Great, much attention has been paid to military tactics and discipline ; and the troops of Prussia rank among the bravest and most efficient in Europe. The regular army amounts to about 320,000, and the *landwehr*, or militia, to about 450,000. The annual revenue is £23,000,000 sterling, and the debt £63,837,000. The manners of the Prussians are essentially German ; but several marked shades distinguish them from their Saxon neighbours.

In no country of Europe is education more general than in Prussia. Besides the universities of Berlin, Halle, Breslau, Bonn, Greifswalde, Königsberg, Göttingen, Kiel, and Marburg, there are in most of the great towns preparatory academies called *gymnasia* ; while upwards of 24,000 schools place elementary education within the reach of the lowest orders. Attendance on school, indeed, is enjoined by law. The literary and scientific annals of the country are adorned by the names of Cluverius, Copernicus, Frederick the Great, Fahrenheit, Kant, Klopstock, Handel, Beethoven, Nicolai, Mendelssohn, Spalding, the Humboldts, etc.

#### EXERCISES.

What are the boundaries of Prussia? What is its extent in square miles? What is the amount of its population? What are its divisions? What are the principal towns in Rhenish Prussia? In Hohenzollern? In Westphalia? In Prussian Saxony? In Brandenburg? In Pomerania? In Silesia? In Posen? In West Prus-



sia? In East Prussia? Where are Elbing, Berlin, Potsdam, Dantzic, Stettin, Colberg, Halberstadt, Dusseldorf, Pillau, Coblenz? etc.

Name the rivers of Prussia. Name its gulfs. Trace the course of the Elbe, the Oder, the Pregel, the Vistula, etc. Where are the Gross Haff, Spirding See, Curische Haff, Frische Haff?

Between what degrees of latitude and longitude is Prussia situated? What are its length and breadth? What portions of country does it comprehend besides the north of Poland? What province is surrounded by Wurtemberg and Baden? What appearance does the greater part of Prussia present? What is remarkable about its rivers? What are its mountain-tracts? In what do these mountain-tracts abound? What is the general quality of the soil? What are the most fertile districts of Prussia? What kind of climate has Prussia? In what state is agriculture? For what manufactures have Silesia and Westphalia long been famous? What are the only manufactures carried on in large factories?

What metals are found among the Harz Mountains? What kind of springs occur in Prussian Saxony? Where does amber particularly abound? What advantages does Prussia enjoy for internal trade? Has it much foreign commerce? What are its principal exports and imports? What have been the effects of the Prussian commercial league?

What is the form of government in Prussia? What is the established religion? What freedom is extended to the followers of other religions? What is the character of the Prussian soldiery? What is the present amount of the army? What people do the Prussians resemble in manners? Is education much attended to in Prussia? What literary institutions does it possess? Mention some of the distinguished names that adorn its literary and scientific annals.

#### DESCRIPTIVE TABLE.

**AIX-LA-CHAPELLE** (Aix-la-Shapel'), *Germ.* Aachen, an ancient city in Rhenish Prussia, celebrated for its hot baths; it was the favourite residence of Charlemagne and his successors. Pop. 68,178.—50° 46' N. lat. 6° 4' E. long.

**Al'sen**, a pleasant island in the Little Belt, 20 miles long and 5 broad. Pop. 22,500.

**Al'tona**, a flourishing seaport in Holstein, on the Elbe, two miles W. of Hamburg. It is a place of considerable commerce and manufactures. There is a railway between it and Kiel. Pop. 53,038.—53, 32 N. 9, 56 E.

**BAR'MEN**, a thriving manufacturing town in Rhenish Prussia. Pop., including suburbs, 64,945.

**Ber'gen**, the chief town of the island of Rugen. Pop. 3100.

**BERLIN'**, the capital of Brandenburg and of the Prussian dominions, situated on the Spree, nearly in the centre of the kingdom. It is one of

the finest cities in Europe. It has many scientific and literary institutions, including a celebrated university founded in 1810; and it is the seat of extensive trade and manufactures. Pop. 702,437.—52, 31 N. 13, 23 E.

**Biele'feld**, a town in Westphalia, the centre of the linen and damask manufactures. Pop. 18,701.

**Bonn**, an ancient town in Rhenish Prussia, pleasantly situated on the left bank of the Rhine, the seat of a flourishing university. Here the musical composer Beethoven was born in 1772. Pop. 23,801.

**Bran'denburg**, a large and populous province, the nucleus of the Prussian monarchy. It contains 15,532 square miles. Pop. 2,719,815.

**Bran'denburg**, a town formerly the capital of the province, on the Havel. Pop. 25,516.

**Brau'ensberg**, a commercial town in E. Prussia, near the Frische Haff. Pop. 10,681.

**Bres'lau**, the capital of Silesia,

situated on the Oder. It has an extensive trade and large manufactures, and is the seat of a flourishing university. Pop. 171,926.—51, 6 N. 17, 4 E.

Brieg, a strong town in Silesia, on the Oder, with extensive manufactures. Pop. 14,273.

Bromberg, a town of Posen, on the Brahe, near its confluence with the Vistula. Pop. 26,662.

Burg, a thriving manufacturing town in Prussian Saxony. Pop. 15,251.

CASSEL, a city of Hesse-Cassel, on the Fulda. It has several fine buildings and some manufactures. Pop. 41,587.—51, 19 N. 9, 30 E.

Celle or Zell, a city in Hanover, on the Aller. Pop. 14,922.

Clausthal, a town in Hanover, on the Harz Mountains; near it are rich silver and lead mines. Pop. 9200.

Cleves, an ancient town in Rhenish Prussia, near the Rhine, formerly the capital of a duchy of the same name. Pop. 8500.

Coblenz, a strong town in Rhenish Prussia, pleasantly situated at the confluence of the Rhine and the Moselle, opposite the fortress of Ehrenbreitstein. Pop. 27,112.

Colberg or Kolberg, a fortified seaport in Pomerania, on the Persante. Pop. 12,850.—54, 9 N. 15, 34 E.

Cologne (*Germ.* Köln), the *Colonia Agrippina* of the Romans, the capital of Rhenish Prussia, on the left bank of the Rhine. It has a great trade, and is the chief medium of intercourse between Holland and Germany. The unfinished cathedral is the finest structure in Germany. Here Rubens the painter was born in 1577. Pop. 125,172.—50, 56 N. 6, 57 E.

Coslin or Koslin, a town in Pomerania, near the Baltic, with woollen manufactures. Pop. 13,575.

Crefeld, a town in Rhenish Prussia, with considerable manufactures of silk. Pop. 53,821.

Culm or Kulm, a fortified town in West Prussia, on the Vistula. P. 6300.

Curische Haff (*Koo'rish Haff*), a lake or bay in East Prussia, about 70 miles in length, but of very unequal breadth.

Cus'trin or Kus'trin, a strongly fortified town in Brandenburg, at the confluence of the Warta and the Oder. Pop. 10,013.

DANTZIC, (*Germ.* Danzig), a city and seaport, the capital of West Prussia, on the Vistula, about 3½ miles

from its mouth. It is strongly fortified, and has an extensive trade, particularly in corn, of which it exports large quantities. Here Cluverius, the geographer, was born in 1580, and Fahrenheit, the inventor of the thermometer which bears his name, in 1690. P. 89,311.—54, 21 N. 18, 39 E.

Diepholz, a small lake in Hanover.

Dietz, a town in the duchy of Nassau. Pop. 3447.

Dusseldorf, a town in Rhenish Prussia, on the Rhine, at its junction with the Dussel. It is a handsome town, and has a considerable traffic. Pop. 63,389.

EHRENBREITSTEIN, a fortress in Rhenish Prussia, one of the strongest in Europe, on the summit of a steep rock, on the E. bank of the Rhine. Pop. 4000.

Eisleben, a town in Prussian Saxony; here Martin Luther was born in 1483. Pop. 12,539.

Elbe, a large river which rises in the Riesengebirge between Silesia and Bohemia. In its course through Saxony and Prussia, it receives many tributaries, and falls into the German Ocean about 60 miles below Hamburg.

Elberfeld, a flourishing manufacturing town in Rhenish Prussia, on the Wipper. Pop. 65,321.—51, 15 N. 7, 9 E.

Elbing, a trading town in West Prussia, on a river of the same name, which falls into the Frische Haff. Pop. 28,055.

Emden, a strong seaport in Hanover, on Dollart Bay, near the mouth of the Ems, with a good harbour and considerable trade. Pop. 12,400.—53, 22 N. 7, 12 E.

Ems, a river of Westphalia, which discharges itself into the North Sea near Emden.

Erfurt, a fortified town in Prussian Saxony on the Gera; it has thriving manufactures of linens and woollens. Pop. 41,760.

Eu'pen, a town in Rhenish Prussia, on its W. frontier, with considerable manufactures. Pop. 14,211.

Eyder (*I'der*), a river between Schleswig and Holstein; it falls into the German Ocean.

Eylau (*Ilow'*), a town in East Prussia, where the French defeated the Prussians and Russians in 1807. Pop. 2800.

FEM'ERN, a small island in the Baltic, off the N. coast of Holstein.

Flensborg, a flourishing seaport

in Schleswig, with an excellent harbour, and a railway to Tonningen, with a branch to Rendsburg. Pop. 20,814.—54, 47 N. 9, 26 E.

Frank'fort-on-the-Main, formerly one of the free towns, but now annexed to Prussia, is situated on the river Main, about 18 miles from its junction with the Rhine. It has many fine buildings, galleries, and museums. Besides its manufactures, it is the chief emporium of the inland trade of Germany. The territory, which has an area of 80 square miles, contains eight villages, and is fertile and highly cultivated. Here Goethe was born in 1749. Pop. 78,277; including the territory, 91,074.—50, 6 N. 8, 36 E.

Frank'fort-on-the-Oder, a town in Brandenburg, with considerable trade. P. 40,994.—52, 22 N. 14, 33 E.

Frische Haff (Freesh' Haff), a bay or lake in East Prussia, 57 miles long, communicating with the Gulf of Dantzic.

Ful'da, a town of Hesse-Cassel, beautifully situated on the river of the same name. Pop. 20,792.

GLATZ, a fortified town in Silesia, on the Neisse, with two strong castles. Pop. 11,821.

Glogau', a strongly fortified town in Silesia, on the Oder. Pop. 17,960.

Gluck'stadt, a seaport in Holstein, near the mouth of the Elbe, at its junction with the Rhu. Pop. 6000.—53, 49 N. 9, 26 E.

Gor'litz, a town in Silesia, on the Neisse, noted for its woollen and linen manufactures. Pop. 36,689.

Gos'lar, a town in Hanover, at the foot of the Harz Mountains, famous for its lead and copper mines. Pop. 8203.

Got'tingen, a city of Hanover, on the Leine, the seat of a celebrated university founded by George II. in 1734. Pop. 14,534.—51, 31 N. 9, 56 E.

Grau'denz, a strong town in West Prussia, on the Vistula, the passage of which it commands. Pop. 14,844.

Greifs'walde, a town in Pomerania, near the Baltic; it is the seat of a university. Pop. 17,380.

Gross Haff or Stett'ner Haff, a bay in Pomerania, at the mouth of the Oder.

Grun'berg, a town in Silesia, with flourishing manufactures. P. 11,091.

Gu'ben, a town in Brandenburg, on the Neisse, with flourishing trade and manufactures. Pop. 18,970.

HALBERSTADT', a town of Prussian Saxony, with a noble cathedral. Pop. 25,336.

Hal'le, a town in Prussian Saxony, on the Saale, the seat of a celebrated university. Here Handel the musician was born in 1684. Pop. 48,946.

Hanau', a thriving manufacturing and commercial town in Hesse-Cassel, on the Kinzig, near its junction with the Main. Pop. 19,225.

Han'over, a country in the north-west of Germany, united to Prussia in 1866. It contains 14,700 square miles. With the exception of the Harz district in the south, the country consists of an immense sandy plain; the fertile tracts being confined to the banks of the rivers Elbe, Weser, Ems, and their tributaries. The Harz Mountains are rich in minerals and covered with valuable forests. The manufactures, with the exception of the linens called Osna-burgs, are inconsiderable. The principal commercial port is Emden. The Hanoverians are robust, industrious, persevering, and strongly attached to ancient usages. The university of Gottingen has long been celebrated. Pop. 1,937,637.

Han'over, the capital of the above country, situated on the Leine. It is divided by the river into the old and the new towns, and contains a royal palace and several handsome public buildings. Here Herschel the astronomer was born in 1738, and Frederick Schlegel the philosopher in 1772. Pop., including the suburbs, 73,979.—52, 22 N. 9, 44 E.

Harz, a mountainous tract of country in the south of Hanover, about 70 miles in length and 20 in breadth, covered with extensive forests. The Brocken, its highest point, is 3658 feet above the sea. The district contains valuable mines of silver, lead, copper, iron, and salt.

Hesse-Cas'sel, formerly an independent principality in the W. of Germany, annexed to Prussia in 1866. It has an area of about 4350 square miles. The country abounds in minerals, and about three-fourths of its surface are covered with woods. Manufactures of various kinds are extensively carried on. The chief educational institution is the university of Marburg. Pop. 738,454.

Hesse-Hom'burg, formerly a land-graviate of Germany, in the W., incorporated with Prussia in 1866.

Area 423 square miles. Population 75,102.

Hil'desheim, a town in the S. of Hanover, noted for its large cattle fairs. Pop. 19,547.

Hohenzol'ern, a small but ancient principality, surrounded on three sides by Wurtemberg, and on the fourth by Baden. It was divided into the two states of Hohenzollern-Hechingen and Hohenzollern-Sigmaringen, each governed by its own prince, until 1849, when both princes resigned their dominions to the King of Prussia as the head of the House of Hohenzollern. The principality contains about 450 square miles. Pop. 64,632.

Hol'stein, a duchy of N. Germany, formerly a part of the kingdom of Denmark, now belonging to Prussia. The country is fertile, with very rich pastures. Its superficial extent is 3255 square miles, and its population 534,510.

I'SERLOHN, a town of Westphalia, with manufactures of copper, bronze, and iron. Pop. 15,341.

JU'LIERS, a strong town in Rhenish Prussia, on the Roer. Pop. 2890.

KIEL (Keel), a seaport, the capital of Holstein, and the seat of a university, with an excellent harbour. It is situated at the E. extremity of the canal which connects the Baltic with the German Ocean, and is the great point of communication with Copenhagen and Hamburg. There is a railway from Kiel to Altona. Pop. 18,771.—54, 19 N. 10, 8 E.

Kon'igsberg, the capital of East Prussia, on the Pregel, near its junction with the Frische Haff. It stands partly on an island, but chiefly on the N. bank of the river, and is the seat of a university. Here the philosopher Kant was born in 1724. Pop. 106,296.—54, 42 N. 20, 30 E.

LANDS'BERG, a town in Brandenburg, on the Warta, with considerable trade, particularly in corn and wool. Pop. 18,341.

Lau'enburg, a district on the right bank of the Elbe. It was a separate duchy till 1689, when it passed to the House of Hanover. In 1815 it was ceded to Prussia, but soon after made over to Denmark. In 1864 it was annexed to Prussia. Pop. 50,000. The town of the same name has a population of 3800.

Lieg'nitz, a fine old town in Silesia, on the Katzbach, the scene of a mem-

orable victory gained by Frederick the Great over the Austrians in 1760. Pop. 20,069.

Lis'sa, a town in Posen, with considerable manufactures. Pop. 10,008.

Lu'nèburg, a town of Hanover, on the Ilmenau. Pop. 15,691.

MAG'DEBURG, the capital of Prussian Saxony, on the Elbe, with an active trade. It is one of the strongest fortresses in Europe. Pop. (including Neustadt and Sudenburg) 78,552.—52, 8 N. 11, 38 E.

Mar'burg, a town in Hesse-Cassel, on the Lahn, with a university. Pop. 7689.

Ma'rienburg, a strong town in West Prussia, on the Nogat, a branch of the Vistula. Pop. 7959.

Ma'rienwer'der, a town in West Prussia, near the Vistula. Pop. 6607.

Mem'el, a seaport in E. Prussia, at the entrance of the Curische Haff, which here communicates with the Baltic by a strait. It is a place of great trade, particularly in timber, which is floated down the Niemen. Pop. 19,003.—55, 42 N. 21, 8 E.

Merse'burg, a town in Prussian Saxony, on the Saale. Pop. 12,846.

Min'den, a fortified town in Westphalia, on the Weser. Here the French were defeated by the British and their allies in 1759. Pop. 16,826.

Muhlau'sen, a fortified town of Prussian Saxony, with considerable manufactures. Pop. 17,696.

Mun'ster, the capital of Westphalia, on a tributary of the Ems. The treaty of peace in 1648, which terminated the Thirty Years' War, was concluded here. Pop. 25,453.—51, 58 N. 7, 37 E.

NAUM'BURG, a town in Prussian Saxony, on the Saale, with a considerable trade. Pop. 14,708.

Nassau', a duchy on the Rhine, between Rhenish Prussia and the states of Hesse, was united to Prussia in 1866. It has an area of 1756 square miles. The territory is mountainous and highly picturesque, beautifully diversified with woods, gardens, and cultivated fields. The vine is here reared with great success, the finest growths of the Rhine, including Hock and Johannisberg, being the produce of the duchy. It is also famed for its mineral waters. It has productive mines of iron, lead, copper, and silver; and working in metals forms a chief branch of manufacturing industry. Pop. 457,571.

**Neisse**, a fortified town in Silesia, on a river of the same name. Pop. 19,031.

**Neu'wied**, a thriving town in Rhenish Prussia, on the Rhine, with a museum of antiquities. Pop. 7246.

**Nie'men** or **Mem'el**, a river which rises near Minsk in Russia, flows through East Prussia, and falls into the Curische Haff below Tilsit.

**Nord'hausen**, a flourishing commercial town in Prussian Saxony, on the Zorge. Pop. 20,183.

**O'DER**, a large river which rises in Moravia, traverses the centre of Prussia, from S. to N., expands into the Gross Haff, and enters the Baltic by three branches, which form the islands of Usedom and Wollin. It communicates by canals with the Elbe and the Vistula.

**Oppeln'**, a well-built town of Silesia, on the Oder, with an old cathedral. Pop. 11,330.

**Os'naburg** or **Os'nabruck**, a town in Hanover, on the Hase, a branch of the Ems. Here are manufactured the coarse linens known by the name of Osnaburgs. Pop. 19,579.

**PAD'ERBORN**, an ancient town in Westphalia. Pop. 12,867.

**Pillau** (**Pillo'**), a seaport in East Prussia, on the Baltic, at the entrance of the Frische Haff. Pop. 3675.—54, 38 N. 19, 54 E.

**Pomera'nia**, a province extending along the S. coast of the Baltic. It contains 12,179 square miles. Pop. 1,445,635.

**Po'sen**, a province of Poland, acquired by Prussia partly in 1773 and partly in 1793. It contains 11,362 square miles. Pop. 1,537,338.

**Po'sen**, a flourishing commercial city, the capital of the province, on the Warta. It is of great antiquity, and strongly fortified. It was at one time the capital of Poland. P. 53,392.

**Pots'dam**, an elegant town in Brandenburg, on the Havel, about 16 miles from Berlin. It is the frequent residence of the Prussian court. Here Alexander von Humboldt, the great naturalist, was born in 1769. Pop. 42,863.

**Pre'gel**, a river in E. Prussia, falling into the Frische Haff below Konigsberg.

**Prens'low**, a thriving town in Brandenburg, on the Ucker, noted for its vapour baths. Pop. 14,931.

**Prus'sia** (**Proper**), divided into East or Ducal Prussia and West Prussia,

bounded on the E. by Russia and Poland. It is the most extensive province of the kingdom, and contains 24,880 square miles. Pop. 8,090,960.

**QUED'LINBURG**, an ancient town of Prussian Saxony, on a tributary of the Saale: here the poet Klopstock was born in 1724. P. 16,856.

**RATIBOR**, a town in Silesia, on the Oder, which here becomes navigable. Pop. 14,571.

**Rends'burg**, a strong town in Holstein, on the Eyder, with a good trade, and railways to Altona, Kiel, Tonnigen, and Flensburg. Pop. 10,000.—54, 18 N. 9, 40 E.

**Rhen'ish Prus'sia**, a fertile and beautiful province lying to the S. of Westphalia, along both sides of the Rhine; it comprehends the former duchies of Cleves and Berg, and the grand-duchy of the Lower Rhine. It contains 10,759 square miles. Pop. 3,455,358.

**Rhine, River.** See GERMANY, p. 193.

**Ru'gen**, an island in the Baltic, separated from Pomerania by a channel a mile broad. Pop. 41,446.—54, 24 N. 13, 30 E.

**SAX'ONY**, Prussian, a province W. of Brandenburg, and N. of the kingdom of Saxony. It contains 9753 square miles. Pop. 2,067,066.

**Schles'wig**, a duchy forming the southern division of the peninsula formerly comprised under the name of Jutland. In 1864 it was captured by, and annexed to, Prussia. Area, 3704 square miles. Pop. 409,907. The town of the same name is pleasantly situated on the Sley. Pop. 10,966.

**Schweid'nitz**, a strongly fortified town in Silesia, in a beautiful situation, near the Riesengebirge Mountains. Pop. 15,768.

**Sile'sia**, a province in the S. E., between Austria and Poland; it is the most fertile part of the Prussian dominions, and the seat of the principal manufactures. It contains 15,725 square miles. Pop. 3,585,752.

**Sol'ingen**, a thriving manufacturing town in Rhenish Prussia, on the Wipper. Pop. 11,874.

**Spandau'**, a fortified town in Brandenburg, at the junction of the Havel with the Spree. Pop. 17,306.

**Spir'ding See'**, a lake in E. Prussia, about 60 miles in circumference.

**Star'gard**, a town in Pomerania, on the Ihna, with considerable trade. Pop. 16,867.

**Stettin**, the capital of Pomerania, on the Oder. It is a flourishing commercial city, the chief seaport of Prussia, and is strongly fortified. Here Catherine II. of Russia was born in 1729. P. 73,714.—53, 24 N. 14, 33 E.

**Stralsund**, a strong seaport in Pomerania, on the strait separating the Isle of Rugen from the mainland. It has a considerable trade, chiefly in corn. Pop. 27,031.—54, 19 N. 13, 7 E.

**Sylt'oe**, an island on the W. coast of Schleswig, famous for oysters.

**THORN**, a strong town in West Prussia, on the Vistula: here Copernicus the astronomer was born in 1473. Pop. 15,505.

**Til'sit**, a commercial town in E. Prussia, on the Niemen, remarkable for the peace concluded in 1807 between the Emperor Napoleon I. of France and the Emperor Alexander I. of Russia. Pop. 19,476.

**Ton'ningen**, a seaport in Schleswig, situated near the mouth of the Eyder, with considerable trade. There is a railway from Tonningen to Flensburg, with a branch to Rendsburg. Pop. 2700.—54, 19 N. 8, 58 E.

**Tor'gau**, a strong town in Prussian Saxony, on the Elbe. Pop. 10,762.

**Treves** (*Germ.* Trier), a city in Rhenish Prussia, beautifully situated on the Moselle. It is remarkable for its antiquities. Pop. 21,840.

**USE'DOM** and **Wollin**, two islands of Pomerania, formed by the mouths of the Oder, which communicate with the Baltic by the Dammer Lake and the Great and Little Haffs. **Swine'mund**, a town on the E. coast of Usedom, is the outport of Stettin.

**VISTULA** (*Germ.* Weichsel), a river which rises in Austrian Silesia, at the foot of the Carpathian Moun-

tains, and, flowing through Poland and West Prussia, divides into three branches; two of which, the Nogat and Old Vistula, run into the Frische Haff, while the main stream, turning westward, falls into the Baltic below Dantzic. The Vistula is navigable for many hundred miles, and is the great channel for conveying corn and other commodities from the interior of Poland.

**WAR'TA**, a river which rises in Poland, flows past Posen, and joins the Oder at Custrin.

**Weissen'fels**, a town in Prussian Saxony, on the Saale, which here becomes navigable. Pop. 13,652.—51, 12 N. 12, 1 E.

**We'sel**, a strongly fortified town in Rhenish Prussia, at the confluence of the Lippe and the Rhine. Pop. 18,507.—51, 39 N. 6, 37 E.

**We'ser**, a large river formed by the junction of the Werra and Fulda at Munden; it flows through the territories of Prussia and Brunswick, skirts Oldenburg on the N. E., and falls into the German Ocean.

**Westpha'lia**, a province S. of Hanover. It contains 7814 square miles. Pop. 1,707,726.

**Wiesbad'en**, a town of Nassau, much frequented for its warm baths and mineral waters. Pop. 30,085.

**Wit'tenberg**, a strongly fortified town of Prussian Saxony, on the Elbe. It is interesting as the cradle of the Reformation, two great champions of which, Luther and Melancthon, are buried in the university church here. Pop. 11,934.

**ZEITS**, a thriving town of Prussian Saxony, on the Elster, an affluent of the Elbe, with large cotton manufactures. Pop. 15,421.

## GERMANY

Is bounded N. by the German Ocean, Denmark, and the Baltic; W. by Holland, Belgium, and France; S. by Switzerland, Italy, and the Adriatic; E. by Austria, Poland, and Russia. In its full extent it comprehends that region where the German race and language prevail.

In 1815, all the sovereign states of Germany were combined under the name of the Germanic Confederation; this union was dissolved in 1866, when all the states north of

the Lower Main and of the Bavarian and Austrian frontiers, excepting those attached to Holland, were formed into a North German Confederation. The following are the states (with the exception of Prussia) into which Germany is now divided:—

#### NORTH GERMANIC CONFEDERATION.\*

States.	Chief Towns.
Saxony .....	Dresden, Leipsic, Freiberg, Chemnitz, Bautzen.
Hesse-Darmstadt (N. of the Main)	Giessen, Schotten, Grünberg.
Brunswick .....	Brunswick, Wolfenbüttel.
Mecklenburg-Schwerin .....	Schwerin, Rostock, Wismar.
Mecklenburg-Strelitz.....	Strelitz, New Brandenburg.
Saxe-Weimar .....	Weimar, Jena, Eisenach.
Saxe-Coburg-Gotha.....	Gotha, Coburg.
Saxe-Meiningen.....	Meiningen, Hildburghausen.
Saxe-Altenburg.....	Altenburg, Eisenberg.
Oldenburg .....	Oldenburg.
Anhalt.....	Dessau, Bernburg, Coethen.
Schwarzburg-Sondershausen ....	Sondershausen.
Schwarzburg-Rudolstadt.....	Rudolstadt.
Waldeck.....	Arolsen, Pyrmont.
Reuss (Older and Younger).....	Greitz, Schleitz.
Schaumburg-Lippe.....	Bückeburg.
Lippe-Detmold.....	Detmold.
The Free Cities .....	Hamburg, Lubeck, Bremen.

#### SOUTH GERMAN STATES.\*

Wurtemberg.....	Stuttgart, Tübingen, Ulm.
Baden.....	Carlsruhe, Baden, Mannheim, Heidelberg, Constance.
Bavaria.....	MUNICH, Augsburg, Ratisbon, Nuremberg, Bamberg, Würzburg.
Hesse-Darmstadt (S. of the Main)	Darmstadt, Mentz or Mayence.
Liechtenstein.....	Liechtenstein.

**MOUNTAINS.**—Part of the Alps, Harz Mountains, Erzgebirge, Riesengebirge, Black Forest.

**LAKES.**—Plau, Schwerin, Müritz, Diepholz, Lake of Constance (or the Bodensee), Chiem See.

**RIVERS.**—Danube, Rhine, Elbe, Oder, Vistula, Weser, Ems, Main, Neckar.

#### REMARKS.

Germany extends from 45° to 55° 50' N. lat., and (including Luxemburg) from 5° 35' to 22° 50' E. long. Its greatest

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\* The North Confederation, exclusive of Prussia, contains a population of 5,788,021, and the Southern States a population of 8,549,211.

length, from east to west, is about 670 miles ; its breadth, from north to south, about 650 miles. It is now divided into twenty-six states, and was formerly divided into nine *Circles* : —Upper Saxony, Lower Saxony, Westphalia, Lower Rhine, Upper Rhine, Franconia, Swabia, Bavaria, Austria.

The Sudetic chain of mountains (commencing with the Westerwald in Westphalia, traversing Hesse-Cassel, the south of Saxony, and terminating in the Carpathians) divides Germany into two great portions. The northern is almost entirely level ; the southern is diversified by mountain-ranges and extensive plains. The tracts of low sandy soil in the north-east, and the swamps and marshes in the north-west, render it probable that this part of Germany was once covered by the sea. Here, except in Saxony, the soil is in general poor, but not unsusceptible of improvement. In the south, the land is of better quality, and in many places, indeed, is extremely fertile. Of the vast woods by which Germany was at one time covered, there are still considerable remains. The Black Forest is the most extensive ; but both Thuringia and the Harz Mountains are thickly wooded ; and great tracts in the central and southern districts are covered with trees. In its agricultural productions, Northern Germany bears no small resemblance to Britain. The wine-country commences about the junction of the Neckar with the Rhine, and stretches southwards. The Rhenish wines have long been celebrated, and next to them in quality are those made on the banks of the Moselle and in some of the Austrian provinces.

Germany is rich in minerals. In the Harz Mountains and the Erzgebirge, there are lead, iron, copper, tin, silver, cobalt, and bismuth ; Bavaria is noted for its extensive and remarkable mines of rock-salt ; and coal is found in Hanover, Saxony, Baden, Bavaria, and Wurtemberg.

The domestic animals do not differ materially from those of the neighbouring countries. Hanover has long been famous for a breed of strong horses for cavalry or the draught. The Merino breed of sheep, introduced into Saxony, yields wool not inferior to that of Spain. Among the wild animals may be enumerated the wolf, the lynx, the glutton, and the wild boar which is here of large size.

The industrious and enterprising spirit of the Germans has enabled them, notwithstanding many disadvantages, to make considerable progress in manufactures. For linen, Silesia, Saxony, and Westphalia have long been celebrated ; and man-



ufactures of cotton were established during the war of 1793-1815, in emulation of those in Britain. The broadcloth of Saxony, and its thread, lace, linen, paper, and porcelain, are of superior quality.

Commerce is still comparatively limited, owing chiefly to the very small extent of seacoast which Germany possesses. Several towns, however, on the shores and the principal rivers, enjoy a flourishing trade, to facilitate which numerous canals and railroads have been formed.

A great obstacle to the commercial and manufacturing prosperity of Germany, was the partition of its territory among so many separate communities, which not only gave rise to factitious interests and conflicting systems of finance and internal regulation, but prevented the necessary unity of effort and combination of resources. The great commercial league called the Zollverein, which was established in 1818, for securing a uniform system of customs throughout Germany, has, however, done much to remove these obstacles. The administration of this league is conducted by delegates from the various states composing it, with a central government at Berlin. The revenue is paid into a common exchequer, and distributed periodically among the members in proportion to their population.

While all the states were so far united under the name of the Germanic Confederation, each was governed by its own prince, who had power to impose taxes, levy troops, and even form alliances, provided he did not interfere with the general welfare. The convocation of princes and of the deputies of the four free cities was called the Diet, which met at Frankfort-on-the-Main. From the death of Louis III., the last prince of the line of Charlemagne, A.D. 911, the office of emperor, or head of the confederation, was elective, and was possessed at different periods by different lines of princes. From 1438 till 1740, the predominant power of Austria secured the imperial dignity to its sovereign. A Bavarian prince was emperor from 1740 till 1745, when the office reverted to Austria. In 1806, Francis II. renounced the title and authority of Emperor of Germany, and assumed that of Emperor of Austria. In 1866, after a short but decisive war, Austria was compelled to renounce all claims to a superiority over the states of North Germany. These, under the title of the North Germanic Confederation, *are under the supremacy of Prussia, while those in the south are nominally under that of Bavaria.*

The established forms of religion are the Roman-catholic, the Lutheran, and the Calvinistic. Toleration, and a praiseworthy liberality of sentiment towards each other, characterise the followers of the several creeds. No part of Europe enjoys greater advantages for education than Germany, especially the northern part of it, elementary schools being established in almost every parish, while seminaries of a higher class are very numerous. There are universities situated in the principal cities, and societies for the cultivation of literature, science, and the fine arts are found in all quarters.

The Germans are generally tall and well-formed; and many of the women are very handsome. Industry and perseverance, fidelity and sincerity, frank and disinterested hospitality, are conspicuous traits in their national character. But they are apt to be misled, both in religion and letters, by a tendency to mysticism and enthusiasm. Formality, and aristocratical pride of family, may be reckoned among their failings.

The Reformation of Luther gave an extraordinary impulse to the national literature of Germany, and Luther himself contributed more than any other man to the advancement of the language, which may be considered as having been fixed by his translation of the Scriptures.

In literature and science, the Germans display equal ingenuity and patience of investigation. Their favourite studies are metaphysics and philology; but they have attained celebrity in almost every department of philosophy and polite learning. Of the fine arts, music is that in which they particularly excel.

#### EXERCISES.

What are the boundaries of Germany? What is its extent in square miles? What is the amount of its population? Into how many states is it divided? What are the principal towns in Baden? In Württemberg? In Bavaria? In Saxony? etc. Name the free cities of Germany? What are its principal mountains? Name its lakes. What are its principal rivers?

Where are Dresden, Hamburg, Munich, Mannheim, Augsburg, Hildburghausen, Leipzig, Stuttgart, Wolfenbüttel? etc. Trace the course of the Main, the Danube, the Oder, etc. Where are Lake Maritz, Chiem See, Lake of Constance? etc.

Between what degrees of latitude and longitude is Germany situated? What are its length and breadth? By what chain of mountains is it divided into two great portions? What are their distinguishing aspects? What circumstances render it probable that the northern part was once covered by the sea? What kind of soil prevails in this division? What is the nature of the soil in the southern division? What is the most remarkable remnant of the ancient forests of Germany? What other districts abound in

wood? What country does Northern Germany resemble in its agricultural productions? Where does the wine-country of Germany commence? What are the most noted wines? What metals are found in the Harz Mountains and Erzgebirge? For what mines is Bavaria noted? For what domestic animals has Hanover long been famous? Into what part of Germany has the Merino breed of sheep been successfully introduced? Mention some of the wild animals of Germany?

For what manufactures have Silesia, Saxony, and Westphalia long been famous? What manufactures were established during the French Revolutionary War, in rivalry of those of Britain? What articles are manufactured in Saxony of superior quality? From what cause is commerce comparatively limited in Germany?

What great obstacle long fettered the commerce and manufacturing prosperity of Germany? By what league has this obstacle been in a great measure removed? For what purpose was the Zollverein established? When did the imperial dignity become elective? How long was it possessed by the House of Austria? By what emperor, and when, was the title of emperor renounced? When was the political influence of Austria excluded from Germany? Under what name are the North German States united?

What are the established forms of religion in Germany? Are the followers of the different creeds mutually tolerant? What is the state of education in Germany? What is the personal appearance of the Germans? What traits are conspicuous in their character? By what tendency are they apt to be misled? What are their failings? What gave an extraordinary impulse to the literature of Germany? Who contributed peculiarly to the improvement of the German language? By what qualities are the Germans distinguished in literature and science? What are their favourite studies? In which of the fine arts do they particularly excel?

#### DESCRIPTIVE TABLE.

**AL'TENBURG**, the capital of the duchy of Saxe-Altenburg, near the Pleisse. It has some manufactures, and is a thriving place. Pop. 18,482.

**Am'berg**, a fortified town in Bavaria, on the Vils, formerly the capital of the Upper Palatinate, with considerable manufactures. Pop. 12,812.

**AN'HALT**, a duchy on the Elbe, almost surrounded by Prussian Saxony. Extent 1020 square miles. The territory is mostly level, fertile, and well cultivated. Pop. 197,041.

**An'spach**, or **An'sbach**, a walled town in Bavaria, on the Lower Rezat. Pop. 13,018.—49° 18' N. lat. 10° 35' E. long.

**Ar'olsen**, the capital of the principality of Waldeck, on the Aar. Pop. 1978.

**Augs'burg**, an ancient city of Bavaria, at the confluence of the *Wertach* and the *Lech*, with considerable

trade and manufactures. It was formerly a free city. Here the Protestants, in 1530, presented to the Emperor Charles V. their celebrated *Confession*, drawn up by Luther and Melancthon. Pop. 50,067.—48, 21 N. 10, 54 E.

**BAD'EN**, the Grand-duchy of, extends along the right bank of the Rhine, from Mannheim to the Lake of Constance, being bounded on the E. by Wurtemberg and Bavaria. Area, 5850 square miles. The general aspect of the country is mountainous, the Black Forest covering about one-third of the surface; but the valleys are very fruitful, particularly in corn and vines, while the forests supply vast stores of valuable timber. Its fine climate and varied scenery, enlivened with woods and streams, have obtained for Baden the title of the paradise of Germany. Mines of gold, silver, copper, iron, and coal are

worked in several places, and above sixty mineral springs are found in the grand-duchy. The government is a constitutional monarchy, the legislative authority being vested in the sovereign and two chambers. More than half the people are Roman-catholics, the remainder being Protestants and Jews. Education, as well in the elementary as in the higher schools, is provided both for Roman-catholics and for Protestants at the public expense, the university of Heidelberg being Protestant, that of Freiburg Roman-catholic. Pop. 1,634,374.

**Baden**, a town in the grand-duchy of the same name, celebrated for its mineral hot-baths. It is commonly called Baden-Baden, to distinguish it from the watering-place of Baden, near Vienna. It is beautifully situated on the Neckar, in the midst of romantic scenery. Pop. 123,915.

**Bayreuth** or **Reyrouth**, a town in Bavaria, beautifully situated on the Red Main. Pop. 15,464.—49, 57 N. 11, 24 E.

**Bellinstadt**, a town in Anhalt, on the Gera, with a local castle. P. 4365.

**Bamberg**, a handsome town in Bavaria, on the Regnitz, near its junction with the Main. It has a fine cathedral. Pop. 25,927.—46, 53 N. 10, 46 E.

**Bautzen**, a town of Saxony, on the Spree, with considerable manufactures. Here Napoleon I. repulsed the Prussians and Russians in 1813. Pop. 12,561.

**Bavaria**, the kingdom of, the most powerful of the South German States, is composed of two distinct parts, the "Territory of the Danube and Main," and the "Territory of the Rhine." The former, comprising seven of the eight provinces into which the country is divided, is bounded N. by the Saxon states, W. by Hesse, Baden, and Wurttemberg, S. by Austria, and E. by Bohemia. The latter lies to the W. of the Rhine, on the French frontier. Total area, 29,100 square miles. The larger territory is mountainous and finely wooded in the north and south; while the centre has wide and fertile plains watered by the Danube and its numerous tributaries. Bavaria is chiefly an agricultural country, yielding large quantities of corn, flax, hemp, and fruits; it is also rich in iron, coal, and salt. Commerce and manu-

factures are carried on to a considerable extent, internal communication being promoted by steam navigation on the Danube, as well as by roads, canals, and railways. The government is a limited monarchy, with two legislative chambers. The Roman-catholic is the religion of the state, but Protestants enjoy a perfect equality of privileges. There are three universities, those of Munich, Wurzburg, and Erlangen; and a general system of education, like that of Prussia, has been established. Pop. 4,524,421.

**Bernburg**, a neat town of Anhalt, on the Saale, with some manufactures and trade. Pop. 12,171.

**Black Forest**, an extensive range of mountains in Wurttemberg and Baden, running parallel to the course of the Rhine; the highest peak is 4675 feet above the sea.

**Blenheim**, a village in Bavaria, on the Danube, memorable for the victory gained by the Duke of Marlborough and Prince Eugene over the French and Bavarians in 1704.

**Bodensee**, or Lake of Constance. See SWITZERLAND, p. 128.

**Bremen**, a free city, and one of the Hanse Towns, on the Weser, about 40 miles from Bremerhaven, at the mouth of the river. It is, next to Hamburg, the principal emporium of the trade of Germany. Area of the territory, 112 square miles. Pop. of the city, 74,574; of the city and territory, 169,574.

**Brunswick**, the duchy of, is composed of five detached portions of territory, E. of Hanover. It includes a part of the Harz Mountains, yielding valuable timber and minerals; the remainder is level and fertile. The people are well educated and industrious, and carry on considerable commerce and manufactures. The state religion is Lutheran. The government is a constitutional monarchy. Area, 1,525 square miles. Pop. 264,448. The royal family of Great Britain is a branch of the illustrious House of Brunswick.

**Brunswick**, the capital of the above duchy, on the Ocker, with some interesting relics of the Middle Ages. Its trade is considerable; and its fairs rank next to those of Leipzig and Frankfurt. Pop. 50,512.—52, 16 N. 10, 31 E.

**Bückeburg**, the capital of Lippe-Schaumburg, on the Aue. Pop. 4224.

**CARLSRU'HE**, a handsome modern city, the capital of the grand-duchy of Baden, near the Rhine. Pop. 32,004.—49, 1 N. 8, 25 E.

**Chemnitz** (*Kem'nitz*), a flourishing manufacturing town in Saxony, on a small river of the same name. Here the jurist Puffendorf was born in 1632. Pop. 58,573.

**Chiem See** (*Ki'em Zee*), a lake in Bavaria, about 12 miles in length and 8 in breadth.

**Co'burg**, the capital of the principality of Coburg, on the Itz, with an ancient castle and palace. Pop. 11,439.—50, 15 N. 10, 58 E.

**Coethen** (*Ket'ten*), a town in the duchy of Anhalt, on the small river Ziehe, with a castle. Pop. 12,894.

**Con'stance**, a fortified town of the grand-duchy of Baden, situated on the lake of the same name; it is famous for the ecclesiastical council held here between 1414 and 1418, which condemned the tenets of Wickliffe, and sentenced John Huss and Jerome of Prague to the flames. Pop. 6300.

**Cuxhav'en**, a small seaport at the mouth of the Elbe. Pop. 1150.—53, 53 N. 8, 44 E.

**DAN'UBE** (*Germ.* *Donau*), the largest river of Europe, the Volga excepted, has its source from three springs in the grand-duchy of Baden. Pursuing a N. E. course, it becomes navigable at Ulm, receiving the Iller, the Lech, the Isar, the Inn, and the Ens. After passing Vienna, it is joined near Presburg by the Morava from the north, and in its course eastward and southward is swelled by several large rivers from the mountains of Hungary and Turkey. Entering the latter, it separates Bulgaria from Wallachia, and, after a course of 1700 miles, discharges itself into the Black Sea by seven mouths.

**Darmstadt**, a walled town, the capital of Hesse-Darmstadt, on the small river Darm. Pop. 31,389.—49, 52 N. 8, 39 E.

**Des'sau**, a strong town of Anhalt, on the Mulda, near its junction with the Elbe. Pop. 16,904.—51, 50 N. 12, 17 E.

**Det'mold**, the capital of Lippe, on the small river Werra. Pop. 6203.

**Deux Ponts** (*Deu Pong'*), a town in Rhenish Bavaria, situated on the Erbach. Pop. 6920.

**Dres'den**, the capital of the king-

dom of Saxony, and one of the finest cities in Europe, is situated on both sides of the Elbe. Its bridge, palace, and other public buildings, excite general admiration. It is also distinguished for its royal library, museum, and picture gallery. Among its numerous manufactures, the beautiful porcelain of Meissen deserves particular notice. Pop. 156,024.—51, 3 N. 13, 44 E.

**EICH'STADT**, a town of Bavaria, capital of a duchy, on the Altmuhl, with an ancient castle in its neighbourhood. Pop. 7600.

**Eis'enach**, a town in the grand-duchy of Saxe-Weimar, on the Nesse, with a fine ducal palace. Pop. 12,879.

**Eis'enberg**, a town of Saxe-Altenburg, with porcelain manufactures. Pop. 5000.

**Elbe and Ems.** See **PRUSSIA**, p. 179.

**Erlan'gen**, a town in Bavaria, on the Regnitz, with a Protestant university. Pop. 11,546.

**Erzgebirge** (*Erz'berg*), the *Ore Mountains*, a chain between Bohemia and Saxony, 4122 feet high; it joins the Riesengebirge, the *Giant Mountains*, on the frontiers of Silesia. The splendour of the scenery has obtained for these mountains the title of the Saxon Switzerland.

**Ess'lingen**, a fortified town in Wurtemberg, on the Neckar, with woollen and cotton manufactures, and a good trade in wine. Pop. 15,586.

**FREI'BERG**, a celebrated mining town of Saxony, situated on the Erzgebirge, at the height of 1179 feet above the sea. The silver-mine in its neighbourhood is one of the richest in Europe. It has considerable manufactures of gold and silver lace. Here are the tombs of Werner the geologist, and of many Saxon princes. Pop. 20,566.

**Frey'burg**, a town in the grand-duchy of Baden, in the Black Forest, with a noble Gothic cathedral and a Roman-catholic university. Pop. 20,792.

**Furth** (*Foorth*), a trading town in Bavaria, on the Regnitz, with a Jewish university, and thriving manufactures of mirrors, jewellery, toys, cotton and woollen fabrics, etc. Pop. 22,496.

**GE'RA**, an elegant city, the capital of the principality of Reuss (Younger Branch), on the Elster, with large manufactures. Pop. 15,363.

**Gie'ssen**, a town of Hesse-Darm-

stadt, on the Lahn, the seat of a university. Pop. 10,241.

Go'tta, a handsome city, the capital of the duchy of Saxe-Coburg-Gotha, on the Leine, with considerable trade and manufactures. The ducal palace of Friedenstein has a valuable library, museum, picture gallery, and cabinet of coins. Pop. 19,071.—50, 56 N. 10, 43 E.

Greitz, the capital of the principality of Reuss (Elder Branch), on the Elster, with some manufactures. Pop. 11,047.

Gust'row, a manufacturing town of Mecklenburg-Schwerin, on the Warnow. Pop. 10,496.

HAM'BURG, a free city, one of the Hanse Towns, and the greatest commercial emporium of Germany, and perhaps of the Continent. It is situated on the Elbe, about 70 miles from its mouth. It is intersected by several navigable canals, and has large sugar-refining and other manufactures. In 1842, about a fourth of the city was destroyed by fire, but has since been rebuilt in a much more elegant style. Area of the territory, 150 square miles. Pop. of the city and suburbs, 223,763; of the city, suburbs, and territory, 306,507.—53, 32 N. 9, 58 E.

Hei'delberg, an ancient city of Baden, on the Neckar, the seat of a flourishing university. The ruins of its castle are magnificent. P. 18,327.

Heil'bronn, a fortified town in Wurtemberg, on the Neckar, with considerable trade and manufactures. Pop. 16,790.

Helm'stadt, a manufacturing town in the duchy of Brunswick, formerly the seat of a university. Pop. 5500.

HESSE-DARM'STADT, or the grand-duchy of Hesse, a principality to the W. and S. of Hesse-Cassel, by a part of which territory and that of Frankfort-on-the-Main it is divided into two nearly equal portions. A large tract of the country is mountainous; the banks of the Rhine are level and very fertile, covered with corn-fields, vineyards, and orchards. Agriculture and the wine-trade are the principal occupations; but in Upper Hesse mining and cattle-breeding are carried on to a considerable extent. The majority of the people are Protestants, and education has made great progress among them of late years. The university of Giessen is attended by about 600 stu-

dents. The government is a constitutional monarchy, with two chambers. Area, 3240 square miles. P. 852,250.

Hild'burghausen, a town in Saxe-Meiningen, on the Werra, formerly the capital of the duchy of Saxe-Hildburghausen, now merged into that of Saxe-Meiningen. Pop. 4263.

Hof, a town of Bavaria, with considerable trade and manufactures. Pop. 14,397.

Hohenlin'den, a village of Bavaria, 20 miles east of Munich, where the French, under Moreau, defeated the Austrians in 1800.

INGOLDSTADT', a strongly fortified town in Bavaria, on the Danube. Pop. 17,684.

JE'NA, a town in the grand-duchy of Saxe-Weimar, on the Saale, the seat of a celebrated university, and the scene of a decisive victory gained by Napoleon I. over the Prussians in 1806. Pop. 6984.—50, 56 N. 11, 37 E.

LANDAU', a strongly fortified town of Rhenish Bavaria, on the Queich. Pop. 10,081.

Land'shut, a town in Bavaria, on the Isar. The church of St Martin has a tower 450 feet in height. Pop. 14,554.

Leip'sic, or Leip'zig, a flourishing commercial city of Saxony, on the Pleisse, the seat of a celebrated university. At its fairs, which are the most important in Germany, the sale of books is very extensive. It is noted for the signal defeat which Napoleon I. sustained in its neighbourhood in 1813. Here the philosopher Leibnitz was born in 1646. Pop. 90,824.—51, 20 N. 12, 22 E.

LIECH'TENSTEIN, the smallest of the German principalities, bordering on Switzerland, with a capital of the same name. It contains 53 square miles. The reigning prince has vast estates in Moravia; his family is one of the most ancient in Europe. Pop. 8320.

LIPPE—Lippe and Schaumburg-Lippe, two small principalities in Westphalia. Area, 645 square miles. The territory is hilly but fertile; the people are intelligent and industrious. The government in both states is a limited monarchy. Pop. 139,287.

LU'BECK, one of the free cities, on the Trave, about 10 miles from Travemunde, at the mouth of the river; it has considerable trade and manufactures. In the church of St Mary are a famous allegorical picture of

the *Dance of Death* and a curious astronomical clock. Here Mosheim, the ecclesiastical historian, was born in 1694. Pop. 30,527.

Lud'wigsburg, a handsome town in Wurtemberg, near the Neckar, with a large royal palace. Pop. 12,423.

MAIN or Mayn, a river formed by two streams which have their source in the N. E. of Bavaria. It becomes navigable at Bamberg, and, after a very winding course through Bavaria, joins the Rhine nearly opposite Mentz.

Man'heim or Mann'heim, a fine city in Baden, at the confluence of the Neckar and the Rhine, with a palace built by the elector palatine. Pop. 84,017.—49, 29 N. 8, 27 E.

MECK'LENBURG, a principality N.E. of Hanover, bordering on Pomerania, and divided into the two grand-duchies of Mecklenburg-Schwerin and Mecklenburg-Strelitz. The whole area is 5688 square miles, of which about five-sixths belong to Mecklenburg-Schwerin. The country is in great part a large sandy plain, interspersed with forests and lakes, and varied by a few hills of moderate elevation. It yields large quantities of wheat, barley, and oats, and has excellent breeds of horses, cattle, and sheep. The religion is the Lutheran; the government a constitutional monarchy. Pop. of Mecklenburg-Schwerin, 560,618; of Mecklenburg-Strelitz, 98,770.

Mei'nigen, a neat town, the capital of Saxe-Meiningen, situated in a valley, on the Werra, and surrounded with gardens. Pop. 7228.

Mentz or Mayence' (*Germ.* Mainz), the *Moguntiacum* of the ancients, a city in Hesse-Darmstadt, on the left bank of the Rhine, nearly opposite the influx of the Main. It is the strongest fortress in Germany. Its museum of Roman monuments is said to be the most complete out of Italy. Here Guttenberg, one of the inventors of printing, was born about 1400. Pop., exclusive of the garrison, 42,704.—50, 0 N. 8, 16 E.

Mu'nich (*Germ.* Munchen), the capital of Bavaria, on the Isar, containing many edifices, striking memorials of the munificence of its kings. Here are a university and a noble gallery of paintings. Pop., including the suburbs, 170,688.—48, 8 N. 11, 34 E.

Mu'ritz, a lake in Mecklenburg.

NECK'AR, a river which rises in the Black Forest, not far from the sources of the Danube, and, traversing Wurtemberg and Baden, falls into the Rhine at Manheim.

Nu'remberg (*Germ.* Nurnberg), an ancient city in Bavaria, situated on the Pegnitz. Its public library is rich in manuscripts and early editions of printed books. The city is famed for its inventions, particularly that of the watch; and its churches are remarkable for fine specimens of painted glass. Here the painter and engraver Albert Durer was born in 1471. Pop. 77,895.—49, 27 N. 11, 4 E.

O'DER, see PRUSSIA, p. 182.

Offenbach, a thriving town in Hesse-Darmstadt, on the Main, the chief manufacturing place in the grand-duchy. Pop. 19,377.

OL'DENBURG, a grand-duchy W. of the Weser, surrounded by Hanover on all sides but the north, where it borders on the North Sea. It closely resembles Hanover in soil and productions, as well as in the character of its population. The prevailing religion is the Lutheran. Area, 2420 square miles. Pop. 315,622.

Ol'denburg, the capital of the grand-duchy, on the Hunte, with a ducal castle, several elegant public buildings, and a fine collection of German antiquities. Pop. 2585.

PASS'AU, a fortified town in Bavaria, at the confluence of the Inn and the Danube. It is romantically situated on a peninsula between the two rivers. Pop. 13,883.

Plau, a lake in Mecklenburg.

Plauen, a thriving town of Saxony, on the White Elster, with a royal castle. It has manufactures of linens and cottons, and there is a royal pearl-fishery in its neighbourhood. Pop. 20,508.

Pyr'mont, a town in the principality of Waldeck, 35 miles S. W. from Hanover, famed for its mineral springs. Pop. 1260.

RASTADT', a strong town in Baden, on the Murg. It has several manufactures, and has been the scene of many diplomatic conferences. Pop. 10,726.

Rat'isbon or Regens'burg, an ancient city, long the capital of Bavaria, on the S. bank of the Danube. From 1662 till 1806, it was the seat of the Imperial Diet. It is a place of considerable trade. Six miles distant is the Valhalla, a fine Doric marble



temple, erected by Ludwig, King of Bavaria, in 1830, for the reception of statues of distinguished Germans. Pop. 30,357.—49, 0 N. 12, 2 E.

**REUSS**, a territory in Upper Saxony, forming two principalities, divided between two branches (Older and Younger) of the same family. It contains 562 square miles. The inhabitants are chiefly employed in rearing cattle and sheep. Pop. 131,966.

**Reutlin'gen**, a town in Wurtemberg on the Echaz, with considerable trade and manufactures. Pop. 13,781.

**Rhine**, a large and beautiful river, which, rising in Mount St Gothard in Switzerland, and passing through the Lake of Constance, divides Switzerland from Germany, and afterwards separates Germany from France. It then flows through the German states, till, passing into Holland, it divides into two branches (the larger of which is called the Waal) and falls into the German Ocean. Its banks, for a great part of its course, show an unbroken succession of picturesque and beautiful scenery.

**Ros'tock**, the principal trading port of Mecklenburg-Schwerin, situated on the Warnow, 9 miles from Warnemunde, its outport at the mouth of the river. The chief exports are corn and wool; the chief imports, colonial produce, wine, and manufactured goods. It is the seat of a university. Pop. 23,849.—54, 3 N. 12, 16 E.

**Roth'enburg**, a town of Bavaria, with an active trade in corn and cattle. Pop. 5594.

**Ru'dolstadt**, the capital of Schwarzburg-Rudolstadt, on the Saale, with a castle. Pop. 6486.

**SAALFELD**, a town of Saxe-Meiningen. Pop. 17,017.

**SAXE-AL'TENBURG**, a small duchy on the W. of the kingdom of Saxony, with a well-wooded and fertile territory. Area, 504 square miles. Pop. 141,426.

**SAXE-CO'BURG-GO'THA**, the most southerly of the independent Saxon states, a duchy formed by the union of the two principalities of Coburg and Gotha. Area, 794 square miles. It comprises part of the Thuringian Forest, and is in general fertile and picturesque. Here, as in the other Saxon states, the people are Lutherans; they are intelligent and

industrious, agriculture and manufactures being in a flourishing state. The government is constitutional. Pop. 168,735.

**SAXE-MEININ'GEN**, a duchy consisting of a long irregular tract between Gotha and Coburg, comprising part of the Thuringian Forest, and watered by the Werra and Saale. Area, 968 square miles. Pop., nearly all Protestants, 180,385.

**SAXE-WEI'MAR**, a grand-duchy on the northern frontiers of the Thuringian Forest; it consists of two principalities besides various detached portions. The area is 1418 square miles. The soil is moderately fertile, and the rearing of cattle forms an important branch of industry. Manufactures have made little progress. Pop., nearly all Protestants, 280,201.

**SAX'ONY**, the kingdom of, a territory encircled by Prussia, Bohemia, and the Saxon duchies, and containing 5772 square miles. The Erzgebirge Mountains on its S. frontier are rich in minerals, and its plains support large flocks of sheep, the wool of which rivals the Spanish merino. Agriculture is prosecuted with the greatest diligence and success, and a considerable breadth of land is laid out in orchards and vineyards. Saxony is distinguished for its mines, as well as for its manufactures of linens, woollens, cottons, and lace. The Saxons, nearly all Lutherans, are perhaps the most intelligent and enterprising people in Germany. The university of Leipsic is the principal seminary. The constitution is a limited monarchy, with two representative chambers. Pop. 2,423,401.

**SCHWARZ'BURG-RUDOLSTADT**, and **SCHWARZ'BURG-SONDERSHAU'SEN**, 2 small principalities intermingled with the Saxon states. Area, 676 square miles. Timber and minerals are the principal products. P. 142,528.

**Schwe'rin**, Lake, in Mecklenburg.

**Schwe'rin**, the capital of Mecklenburg-Schwerin, pleasantly situated on the S. W. shore of the lake. Pop. 25,053.—53, 37 N. 11, 30 E.

**Sondershau'sen**, the capital of Schwarzburg-Sondershausen, on the Wipper. Pop. 5873.

**Spire** (*Germ.* Speyer), the ancient *Noviomagus*, a town of Rhenish Bavaria, situated on the Rhine. In the German Diet, held here in 1529, the reformers entered that celebrated



protest against the proceedings of the emperor which procured them the name of Protestants. Pop. 14,806.

Strelitz, the capital of Mecklenburg-Strelitz, composed of Old and New Strelitz, a mile distant from each other. Pop. 8301.

Stuttgart, the capital of Wurtemberg, finely situated on the Nesenbach, near its junction with the Neckar. In the royal library is a collection of 12,000 Bibles, comprising editions of every age and country. Pop. 75,781.—48, 46 N. 9, 11 E.

Tubingen, a city in Wurtemberg, on the Neckar. It is the seat of a university. Pop. 7500.

Ulm, a strong town of Wurtemberg, situated on the Danube, near its junction with the Iller, in a rich and beautiful plain. Its cathedral is a noble structure 416 feet long, with a tower 337 feet high. Pop. 24,739.—48, 23 N. 9, 59 E.

VISTULA. See PRUSSIA, p. 183.

Waldeck, a principality consisting of the principality of the same name, on the N. W. of Hesse-Cassel, and of the principality of Pyrmont, on the W. of Brunswick. Area, 466 square miles. About a third of the surface is covered with forests of oak and beech; the inhabitants are chiefly employed in agriculture. Population, nearly all Protestants, 56,809.

Weimar, the capital of Saxe-Weimar, finely situated on the Ilm. It has long held a high rank as a seat of literature, through the liberal patronage of the ducal family. Pop. 14,794.—50, 59 N. 11, 20 E.

Weser. See PRUSSIA, p. 183.

Wismar, a seaport in the grand-duchy of Mecklenburg-Schwerin, on the Baltic, with a good harbour. It

has considerable trade in shipbuilding. Pop. 13,531.

Wolfenbittel, a city in the duchy of Brunswick, pleasantly situated on the Ocker. It has a public library, containing some of Luther's manuscripts. Pop. 9333.

Worms, an ancient city in Hesse-Darmstadt, on the left bank of the Rhine. At the diet held here, in 1521, Luther was excommunicated. Pop. 11,988.

WURTEMBERG, the kingdom of, has Baden on the W. and Bavaria on the E. Its area is 7640 square miles. It is traversed by the Neckar from S. to N., and by the Danube from W. to E., its western frontier being occupied by the mountain-range of the Black Forest. It is one of the most fertile countries of Germany, and exports large quantities of all kinds of agricultural produce. Salt is the principal mineral product, and the extensive forests supply vast stores of valuable timber. About three-fourths of the people are Lutherans, the remainder being Roman-catholics and Jews; they are distinguished for their intelligence, industry, and morality. There is a university at Tubingen, and schools of all kinds are numerous. The government is a limited monarchy. Pop. 1,778,479.

Wurzburg, a strong town in Bavaria, delightfully situated on the Main. It is the seat of a university founded in 1403. Pop. 42,185.—49, 46 N. 9, 55 E.

Zerbst, a town in Anhalt. Pop. 11,441.

Zittau, a manufacturing town in Saxony, on the Neisse. Pop. 15,628.

Zwickau, a town in Saxony, on the Mulda, with manufactures of woollens, cottons, and hosiery. P. 24,509.

## THE AUSTRIAN EMPIRE

Is bounded N. by Saxony, Prussia, and Poland; W. by Bavaria, Switzerland, and Italy; S. E. by the Adriatic and Turkey; E. by Turkey and Russia. It contains 236,311 *square miles*. Its population is 35,553,000.

Countries.	Chief Towns.
Archduchy of Austria....	VIENNA, Linz, Steyer.
Salzburg.....	Salzburg.
Styria.....	Gratz.
Carinthia.....	Klagenfurt, Villach.
Carniola.....	Laybach.
Goritz, Gradisca, Istria, } and Trieste.....	Trieste, Capo d'Istria.
Tyrol and Vorarlberg....	
Innsbruck, Trent, Botzen.	
Bohemia.....	Prague, Reichenberg, Eger, Koniggratz.
Moravia.....	Brunn, Olmutz, Austerlitz.
Silesia.....	Troppau, Teschen.
Galicia and Lodomeria...	Lemberg, Brody, Cracow.
Bukowina.....	Czernowitz.
Dalmatia.....	Zara, Spalatro, Ragusa.
Hungary.....	Buda, Pesth, Presburg, Komorn, Schemnitz, Tokay, Debreczin.
Servia and the Banat } of Temes.....	Temeswar.
Croatia and Slavonia....	
Agram, Essek.	
Transylvania.....	Klausenburg, Hermanstadt, Kronstadt.
Military Frontiers.....	Karlstadt, Peterwardein, Semlin, Versetz.

**MOUNTAINS.** — Carpathian Mountains, Sudetic Mountains, Rhætian or Tyrolese Alps.

**LAKES.**—Zirknitz, Neusiedler See, Balaton Lake or Platten See.

**RIVERS.**—The Danube, with its tributaries, the Inn, Drave, Save, March or Morava, Theiss, Maros;—the Elbe, Moldau, Dniester.

#### REMARKS.

The Austrian Empire extends from 42° 10' to 51° N. lat., and from 9° 35' to 26° 30' E. long. Its length, from E. to W., is 860 miles; its breadth, exclusive of Dalmatia, from N. to S., is 480 miles.

The Austrian dominions, enlarged by the successive acquisitions of centuries, embrace countries as various in their natural properties as their inhabitants are different in language, manners, and national character. The German territory is almost everywhere mountainous, especially in Styria, Carinthia, and Carniola. Hungary is level, except towards the Carpathian Mountains. Galicia, though it contains sandy tracts, is, next to Hungary, the chief granary of the Austrian states. Silesia, lying to the west of Galicia, abounds in pasture and timber.

In Hungary the climate resembles that of the southern countries of Europe; but the summer is hotter, and the winter more severe. The soil in the south is remarkable for its fertility, and notwithstanding the imperfect state of agriculture, yields corn sufficient for the maintenance not only of its own inhabitants, but of those of the north, where the land is in many places occupied by vast heaths and sandy plains. That part of Hungary which is sheltered by the Carpathians is peculiarly favourable to the growth of the vine; and produces the celebrated wine called Tokay.

Except in their more elevated regions, Bohemia, Moravia, and the archduchy of Austria have a mild and salubrious climate, and are rich in corn and wine.

Few countries can vie with Austria in mineral wealth. At Kremnitz and Schemnitz, in Hungary, there are valuable mines of gold and silver; the surrounding district abounds in copper, antimony, coal, salt, and alum; there is tin in Bohemia, and Hungary is the only territory in which the true opal has been found. The iron and native steel of Carinthia and Styria are of excellent quality; and the quicksilver mines of Idria, in Carniola, are, next to those of Spain, the most productive in Europe. The tract of Galicia which borders upon the Carpathian range, yields copper, iron, and lead; and at Wieliczka, near Cracow, there are extensive mines of rock-salt.

In agriculture and commerce Austria has not kept pace with the more western states of Europe; and her manufactures are neither numerous nor extensive, considering the resources of her territory. Her trade is in some measure necessarily limited by the small extent of her seacoast; but the introduction of steam on the Danube and the Italian lakes, the connexion of the Danube and the Adriatic by the Vienna Canal, and of the Rhine and the Danube by Ludwig's Canal—together with the numerous railways which now connect almost all the Austrian territories with each other and with the neighbouring countries—must speedily open new fields of commercial enterprise. In Vienna there are manufactures of silk, gold and silver lace, silver-plate, cloths, stuffs, linens, mirrors, and porcelain. Bohemia is noted for its beautiful glass, linen, and paper.

The various kingdoms and provinces of which the Austrian Empire is composed are united under an hereditary monarchy, the head of which assumed the title of Emperor of Austria in 1804, abandoning his former style of Emperor of Germany and King of the Romans. In 1866, the Emperor Francis-

Joseph was obliged, in consequence of the war with Prussia, to resign the title of head of the Germanic Confederation, and was excluded from interfering in the politics of Germany beyond the boundaries of his own provinces. In the following year he was, with great pomp and antique ceremony, crowned King of Hungary, and Austria became a bipartite state, consisting of a German monarchy and Magyar kingdom, each possessing its own laws, its own parliament, and its own ministers. The main feature in the constitution of German Austria is a double legislature, consisting of the Provincial Diets, representing the various countries of the monarchy, and the Central Diet, called the Reichsrath or Council of the Empire. In Hungary, the power of legislation is also vested in two great representative bodies, viz., the County Meetings and the Diet or Parliament. The German population of the empire is nearly 12,000,000; there are upwards of 5,000,000 of Magyars or Hungarians, more than 15,000,000 of Sclavonians and other races, and 1,000,000 of Jews. The public schools are classed into elementary and national schools, high schools, normal schools, gymnasia, and classical schools. There are seven universities, namely, those of Prague, Vienna, Lemberg, Gratz, Olmutz, Innsbruck, and Pesth. The military force of Austria in time of peace is 236,000 men; its navy is insignificant. The yearly revenue is estimated at £42,000,000, and the public debt at £334,000,000 sterling.

The prevailing religion is the Roman-catholic; but other sects of Christians are tolerated. The manners of the Austrians differ little from those of their German neighbours; but in general information they are inferior to the inhabitants of Saxony. Few names of any celebrity adorn the literary annals of Austria.

#### EXERCISES.

What are the boundaries of the Austrian Empire? What is its extent in square miles? What countries does it contain? What are the chief towns in the archduchy of Austria? In Bohemia? In Moravia? In Galicia? In Illyria? In Hungary? In Transylvania? In Dalmatia? Name the mountains, the lakes, the rivers.

Where are Essek, Olmutz, Trent, Gratz, Innsbruck, Austerlitz, Kronstadt, Lemberg, Tokay, Prague, Vienna, Pesth, Presburg? etc. Trace the course of the Maros,—of the Save,—of the Elbe,—of the March,—of the Theiss, etc. Where is Platten See? etc.

Between what degrees of latitude and longitude is the Austrian Empire situated? What are its length and breadth? What is the general aspect of its German territory? What is the general aspect of Hungary and Galicia? What is remarkable in the climate

of Hungary? What is the nature of the soil? With what is the soil occupied in many parts of the north? What part of Hungary is favourable to the growth of the vine? What celebrated wine does it produce? What kind of climate prevails in Bohemia, Moravia, and the archduchy of Austria? In what productions are those countries rich? Is Austria rich in mineral wealth? Where are valuable mines of gold and silver found? What precious mineral is found in Hungary alone? For what metals are Carinthia and Styria particularly noted? What is remarkable about the quicksilver mines of Idria? What metals are found in Galicia? What remarkable mines are wrought at Wieliczka, near Cracow?

What is the state of agriculture, manufactures, and commerce in Austria? Are there many canals and railways in the country? What are the principal manufactures in Vienna? For what manufactures is Bohemia noted?

When was Austria's political influence excluded from Germany? When was the Emperor crowned King of Hungary? What is the present form of government in Austria and Hungary? How many Germans are there in the Austrian dominions? How many Magyars? How many Italians? How many Slavonians? How are the different schools classified? What is the number of the universities? At what number is the military force of Austria computed? To what sum does its yearly revenue amount? What is the prevailing religion in Austria? By what peculiarities are the manners of the Austrians characterized? Do the literary annals of Austria present many celebrated names?

#### DESCRIPTIVE TABLE.

A'GRAM, a strong town, the capital of Croatia, near the Save. Pop. 16,900.—45° 52' N. lat. 16° 0' E. long.

Ar'ad, a strong town of Hungary, on the right bank of the Maros, with a great trade in corn and cattle. Pop. 26,959.

Aus'terlitz, a town of Moravia, where Napoleon I. gained a decisive victory over the united forces of Austria and Russia, in 1805. Pop. 8300.

Aus'tria, the archduchy of, the hereditary dominion of the imperial family, and a province of the Austrian Empire, is divided by the river Ens into Upper and Lower Austria. Extent, 12,300 square miles. Pop. 2,661,872.

BA'DEN, a town in the archduchy of Austria, celebrated for its hot springs and baths. Pop. 8760.

Ban'at (The) of Temes, a district to the S. E. of Hungary, between the Theiss and the Maros. Pop., including the voivodat of Servia, with which it is united, 1,532,251. Part of the Banat, with a pop. of 890,058, is included in the Military Frontiers.

Bley'berg, a town in Carinthia, noted for its lead-mines. Pop. 2255.

Bohe'mia, the kingdom of, a province of the Austrian Empire, situated nearly in the centre of Germany, and surrounded by mountains. It is very fertile, and rich in mineral products. Extent, 20,050 square miles. Pop. 5,059,125.

Bot'zen or Bolsa'no, a fine town of the Tyrol, on the Eisach. Pop. 10,172.

Braz'za, the largest island of Dalmatia, in the Adriatic. Pop. 15,495.

Brix'en, a town of the Tyrol, at the confluence of the Rienz and the Eisach. Pop. 8189.

Bro'dy, a town in Galicia, with considerable commerce. Pop. 18,488, of whom five-sixths are Jews.

Brunn, the capital of Moravia, on the Schwarza. Its manufactures and trade are extensive. Pop. 58,809.—49, 11 N. 16, 36 E.

Bu'da or O'fen, the capital of Hungary, on the right bank of the Danube. It is famous for its baths, and the environs produce excellent wines. Pop. 55,240.—47, 29 N. 19, 3 E.

**Bud'weis**, a fortified town of Bohemia, on the Moldau, with flourishing manufactures. Pop. 14,811.

**Bukowi'na**, the duchy of, a province of the Austrian Empire, on the S. E. of Galicia. Extent, 4014 square miles. Pop. 501,038.

**CA'PO D'IS'TRIA**, a seaport of Istria, on a small island in the Gulf of Trieste, connected with the mainland by a bridge. Pop. 6800.

**Carin'thia** and **Carnio'la**, two duchies forming the more important part of the kingdom of Illyria. The lead-mines of Carinthia and the quicksilver-mines of Carniola are among the most celebrated in Europe. Extent, 7832 square miles. Pop. 800,000; viz. Carinthia 340,456, Carniola 468,941.

**Carls'bad**, a town of Bohemia, situated in a charming valley, watered by the Tepel. Its hot baths are among the most famous in Europe. Pop. 2000.

**Carpa'thian Mountains**, a range which extends above 600 miles, from the N. W. border of Hungary to the Danube on the frontier of Wallachia. It separates Hungary from Moravia, Galicia, and the Bukowina; and Transylvania from Moldavia and Wallachia. The mountains, to the height of 3600 feet, are generally covered with forests of pine and beech. The most elevated peak, **Ruska**, is 9912 feet high.

**Catta'ro**, a strong seaport near the S. extremity of Dalmatia, on a gulf of the same name in the Adriatic. Pop. 3000.—42, 27 N. 18, 46 E.

**Comorn**. See **Komorn**.

**Cra'cow** or **Kra'kow**, a grand-duchy of Galicia; it was for some time a republic under the protection of Austria, Russia, and Prussia; but, in 1846, was incorporated with the Austrian Empire.

**Cra'cow**, the capital of the grand-duchy of the same name, the ancient capital of the kingdom of Poland, is situated in a fine valley on the left bank of the Vistula. It is the seat of a university, and has a cathedral, where the kings of Poland were crowned, and where many of their tombs are preserved. Pop. 41,806, of whom one-fourth are Jews.—50, 3 N. 19, 56 E.

**Croa'tia** and **Sclavo'nia**, the kingdom of, one of the southern provinces of Austria. It has Hungary and Styria to the north, Illyria and the

Adriatic to the west, and Dalmatia and Turkey to the south. Pop. 941,630. Part of Croatia and Sclavonia, with a pop. of 674,864, is included in the Military Frontiers.

**Czer'nowitz** or **Tcher'nowitz**, the capital of the duchy of the Bukowina, on the Pruth. Pop. 26,345.

**DALMA'TIA**, the kingdom of, a province of the Austrian Empire. It consists of a long strip of mainland and numerous islands along the E. shore of the Adriatic. Almost its whole surface is covered by the Dinaric Alps. The islands on the Adriatic coast are also mountainous; their chief products are timber, wine, oil, figs, and corn. Area, 12,350 square miles. Pop. 437,788.

**Dan'ube**. See **GERMANY**, p. 190.

**Debrec'zin**, a town of Hungary, on the E. of the Theiss, with various manufactures and considerable trade. It is the seat of a numerously attended Calvinistic college. Pop. 36,283.—47, 32 N. 21, 38 E.

**Dnies'ter**. See **RUSSIA**, p. 169.

**Drave**, a large river which rises in the Tyrol, flows through Carinthia and Styria, separates Croatia and Sclavonia from Hungary, and joins the Danube below Essek.

**E'GER**, a town of Bohemia, on a river of the same name. Here **Wallenstein** was assassinated in 1634. Pop. 11,500.

**Elbe**. See **PRUSSIA**, p. 179.

**Ens** or **Enns**, a river which has its source in the duchy of Salzburg, divides the archduchy of Austria into the two provinces, the Upper and the Lower, and falls into the Danube.

**Erlau'**, a fortified town of Hungary, on the W. of the Theiss, with considerable trade. Pop. 18,150.—47, 55 N. 20, 24 E.

**Ess'ek** or **Eszek'**, a strongly fortified town, the capital of Sclavonia, situated on the Drave. Pop. 13,250.—45, 30 N. 18, 42 E.

**FIU'ME**, a seaport with a territory of 132 square miles, situated on the Gulf of Quarnero; it is a free port, and formerly possessed an extensive trade, which has now greatly declined. P. 13,800.—45, 20 N. 14, 26 E.

**GALI'CIA** and **Lodome'ria**, the kingdom of, the north-eastern province of the Austrian Empire, separated from Hungary by the Carpathian Mountains. Agriculture is in a low state; and manufactures, though gradually extending, are still

on a confined scale. The foreign trade is very limited. Extent, 30,157 square miles. Pop., with Cracow, 5,004,470.

Gor'itz or Gorz, a town on the Isonzo, the capital of the county of the same name. Here Charles X. of France died in 1836. Pop. 10,000.

Gradis'ca, a town on the Isonzo, the capital of the county of the same name.

Gian, a town of Hungary, on the Danube, with a fine cathedral. Pop., including the suburbs, 8544.

Gratz, a handsome town, the capital of Styria, on the Muhr; it is the seat of a university. Pop. 63,176.—47, 4 N. 15, 27 E.

Grosswar'dein, a strong city of Hungary on the Koros. Pop., including the suburbs, 22,000.

HERMAN'STADT, the capital of a government of the same name (sometimes also called the Saxonland) in Transylvania, situated on the Szeben. Pop. 16,588.

Hun'gary, the kingdom of, one of the most interesting but least known countries of Europe. Its area is 69,325 square miles, being nearly one-third of the Austrian Empire. Pop. 10,567,590, of whom about one-half are Magyars, a fourth Sclavonians, and less than a fourth Germans.

ID'RIA, a town in the duchy of Carniola, with valuable mines of quicksilver. Pop. 5000.

Iglau', a town of Moravia, on a river of the same name, with considerable manufactures of woollens. Pop. 16,500.—49, 23 N. 15, 36 E.

Illyr'ia, the kingdom of, a province of the Austrian Empire, which comprehends the duchies of Carinthia and Carniola, the counties of Goritz and Gradisca, the Margravate of Istria, and the city and territory of Trieste. It is a mountainous country, with fertile valleys, abounding in mineral wealth—quicksilver, copper, iron, silver, marble, jasper, and garnets. The most important manufactures are those of copper, iron, and steel; the commerce consists chiefly of the transit-trade between Vienna and Trieste. Extent, 10,940 square miles.

Inn, a river which rises in Switzerland, crosses the Tyrol, and, after forming the boundary between Bavaria and Austria, joins the Danube at Passau.

Innsbruck, the capital of the Tyrol, on the Inn, on the direct route

from Germany to Italy. It stands in one of the most beautiful valleys of the Alps, and is the seat of a university. Pop. 14,524.—47, 16 N. 11, 24 E.

Is'tria, the Margravate of, a peninsula between the Gulf of Trieste and the Quarnero Isles. Pop. 232,909.

JAR'OSLAW, a town of Galicia and Lodomeria, on the San, with an imperial cloth manufactory. P. 7000.

KARLS'BURG, a town of Transylvania, on the Maros, with a strong fortress. Pop. 5239.

Karl'stadt, a strong town of Croatia, on the Kulpa. Pop. 6000.

Kets'kemet, a town of Hungary, between the Danube and the Theiss. Pop. 39,434.—46, 55 N. 19, 44 E.

Kla'genfurt or Cla'genfurt, the capital of the duchy of Carinthia, on the Glan. Pop. 14,479.

Klan'senburg, the capital of Transylvania, beautifully situated on the Little Szamos. Here Matthias Corvinus, a noted king of Hungary, was born in 1443. Pop. 20,500.

Komorn' or Comorn', a strongly fortified town of Hungary, at the junction of the Danube and the Waag. Pop. 12,160.

Ko'niggratz, a fortified town in Bohemia, on the Elbe. Near it was fought the decisive battle of Sadowa, which closed the war between Austria and Prussia in 1866. Pop. 5200.

Krem'nitz, a town in the N. W. of Hungary, celebrated for its mines of gold and silver. Pop. 5176.

Kron'stadt, a strong town in the S. E. of Transylvania, with considerable trade and manufactures. Pop., including the suburbs, 26,826.—45, 40 N. 25, 34 E.

LAY'BACH, the capital of the duchy of Carniola, on a river of the same name, with a great transit-trade between Germany and Trieste. Pop. 20,747.—46, 2 N. 14, 30 E.

Lem'berg, the capital of Galicia and Lodomeria, on the Peltew; it is the seat of a university, and has a thriving trade. Pop. 70,384.—49, 53 N. 24, 2 E.

Linz, a fortified town, the capital of Upper Austria, on the Danube, with considerable trade and manufactures. Pop., including the suburbs, 27,628.—48, 18 N. 14, 18 E.

Lis'sa and Les'ina, two fruitful islands of Dalmatia, in the Adriatic. Pop. 17,739.

MARCH or Mora'va, a river which

rises in the lofty Schneeberg, at the junction of Bohemia, Moravia, and Silesia, flows S. through Moravia, separates the archduchy of Austria from Hungary, and falls into the Danube above Presburg.

Maros', a river which rises in the Carpathian Mountains, on the E. border of Transylvania, forms the boundary of the Banat, and falls into the Theiss.

Mele'da, an island of Dalmatia, in the Adriatic, supposed by some to have been the ancient *Melita*. Pop. 1000.

Military Frontiers, a tract of country which extends from the Adriatic to the Bukowina, between the frontiers of Croatia, Slavonia, the Banat and Transylvania on one side, and those of Turkey on the other, forming the defensive barrier of the Austrian Empire on the south. Area, 18,165 square miles. Pop. 1,111,014.

Miskolcz', a town of Hungary, on the W. of the Theiss, in a rich wine and corn country. Pop. 26,000.—48, 7 N. 20, 47 E.

Moldau', a river of Bohemia, which flows northward and joins the Elbe below Prague.

Mora'via, the Margravate of, a province of the Austrian Empire, between Hungary and Bohemia; it has large and flourishing manufactures of woollen, linen, and cotton, with a great transit-trade. Extent, 10,523 square miles. Pop. 1,983,324.

Mur or Muhr, a river which flows through Styria, and joins the Drave in Hungary below Warasdin.

NEU'SATZ, a fortified town of Hungary, on the Danube, opposite Peterwardein: it has a considerable trade with Turkey. Pop. 10,000.

Neu'siedler See, a salt-water lake in the W. of Hungary; it is 24 miles long and about 10 broad.

Neu'sohl, a town of Hungary, on the Gran, with valuable copper-mines in its vicinity. Pop., including the suburbs, 10,000.

OEDENBURG, a town of Hungary, near the Neusiedler lake. Pop. 12,500.—47, 41 N. 16, 38 E.

Ol'mutz, a town of Moravia, on the river March. It is strongly fortified, and is the seat of a university. Pop. 15,000.

PESTH, a handsome city of Hungary, on the Danube, opposite Buda, with which it is connected by a bridge of boats and by a suspension bridge.

It has a university richly endowed, and commands a great inland trade. Pop. 131,705.—47, 30 N. 19, 4 E.

Peterwar'dein, a strong town, the capital of Slavonia, on the Danube. Here the Austrians, under Prince Eugene, signally defeated the Turks in 1716. Pop. 6700.

Pil'sen, a handsome town of Bohemia, on the Beraun, with flourishing trade and manufactures. Pop. 14,269.

Plat'ten See or Lake Bal'aton, in the S.W. of Hungary, 48 miles long, and from four to eight broad. Fish of peculiar species abound in its waters.

Pol'ten, St, a fortified town in the archduchy of Austria, 35 miles W. from Vienna. Pop. 5800.

Prague, a handsome and strongly fortified city, the capital of Bohemia, on the Moldau, over which there is here a beautiful bridge. It is the seat of a university, the oldest in Germany, having been founded in 1348, and is famous as the residence of the reformers, John Huss and Jerome of Prague. Here the astronomer Tycho Brahe died in 1601. Pop. 142,588.—50, 5 N. 14, 25 E.

Pres'burg, once the capital of Hungary, and still the place where its kings are crowned. It is finely situated on an eminence overlooking a vast plain, watered by the Danube. Pop. 43,863.—48, 10 N. 17, 8 E.

Pros'nitz, a manufacturing town of Moravia, 13 miles S. W. from Olmutz. Pop. 10,800.

RAAB, a town of Hungary, near the junction of the Raab with the Danube. Pop. 18,000.

Ragu'sa, a strongly fortified seaport of Dalmatia, on a peninsula in the Adriatic. Pop. 21,705.—42, 38 N. 18, 7 E.

Reich'enberg, a town in the N. of Bohemia, on the Neisse; it has cloth and other manufactures. Pop. 18,854.

Rovere'do, a town in the S. of the Tyrol, near the Adige, with a strong castle. Pop. 8000.

SALZ'BURG, the duchy of, a province of the Austrian Empire. Extent, 2752 square miles. P. 146,769.

Salz'burg, the capital of the above duchy, finely situated on the Salzach, amid romantic scenery. Here the musical composer Mozart was born in 1756. In its vicinity are the famous salt-mines of Hallein. Pop. 17,253.

San, a river of Galicia, which rises



in the Carpathian Mountains, and flowing N.W. falls into the Vistula, near Sandomir.

Save, a large river which rises near Villach in Carinthia, flows through Croatia, separates Sclavonia from Turkey, and falls into the Danube at Belgrade.

Schem'nitz, a town in the N. W. of Hungary, famous for its mines of gold, silver, and lead. Here is a celebrated mining school. P. 13,644.—48, 27 N. 18, 50 E.

Schwatz, a town of the Tyrol, on the Inn, with mines of silver and copper in its vicinity. Pop. 4628.

Sclavo'nia and Croa'tia, the kingdom of, one of the southern provinces of Austria. Extent, 3643 square miles. Pop. 876,009.

Sem'lin, a fortified town of Sclavonia, near the junction of the Save with the Danube, the principal entrepôt of the trade between Austria and Turkey. Pop. 12,978.

Ser'via, the voivodat of, one of the southern provinces of Austria. Pop., including the Banat with which it is united, 1,532,251.

Sile'sia, the duchy of, a province of the Austrian Empire. Extent, 1982 square miles. Pop. 683,408.

Spal'atro or Spal'ato, a seaport of Dalmatia, on the Adriatic, near the ancient *Salo'na* and the ruins of the palace of Diocletian. Pop. 15,784.—43, 31 N. 16, 26 E.

Stern'berg, a town in the N. of Galicia, with manufactures of woollens, linens, and hosiery. P. 12,665.

Stey'er, a town in the archduchy of Austria, on the Ens, with large iron-works and manufactures. Pop. 10,752.

Stuhlweiss'enburg, a town of Hungary, near Lake Balaton, with large manufactures and cattle-markets. Pop. 18,399.

Sty'ria, the duchy of, a province of the Austrian Empire, between the archduchy of Austria and Croatia. It is a mountainous country with fertile valleys. Cattle and sheep are extensively reared, and mining is the principal branch of industry. The mountains are clothed with oak, beech, and pine. Extent, 8656 square miles. Pop. 1,280,196.

Sudet'ic Mountains, a semicircular range of the *Hercynian* chain, which separates Austria from Saxony and Prussia; it is distinguished by the names of the Erzgebirge and the

Riesengebirge, i.e., the Ore and the Giant Mountains.

Szege'din, a town of Hungary, at the confluence of the Theiss and the Maros. It is a place of considerable manufacturing and commercial importance. Pop. 62,700.—46, 17 N. 20, 10 E.

TARNO'POL, a town of Galicia, on the Sered. Pop. 17,310.

Tem'eswar, the capital of the Banat. It is situated on the Bega Canal, and is strongly fortified. Pop. 22,507.

Tes'chen, a fortified town of Silesia, on the Olsa, with considerable manufactures. Pop. 6400.

Theiss (Teess) a large river of Hungary, formed by two streams, the Black and White Theiss. After a S. course of 500 miles, it flows into the Danube below Peterwardein, and is navigable almost to its source, on the borders of Galicia.

There'sienstadt or Theresiano'pol, a town (or rather a collection of villages) in the Banat, situated on a wide plain. Pop. 53,499.—46, 6 N. 19, 42 E.

Tokay', a town of Hungary, at the confluence of the Theiss and the Bodrog. Its wine is one of the finest and most costly in Europe. Pop. 5712.

Top'litz, a town in the N. W. of Bohemia, famous for its hot baths. Pop. 6854.

Transylva'nia, the grand-duchy of, a province of the Austrian Empire, to the E. of Hungary. Its mineral produce is a great source of wealth; there are numerous gold-mines, and almost every stream is auriferous. Extent, 21,160 square miles. Pop. 2,052,292.

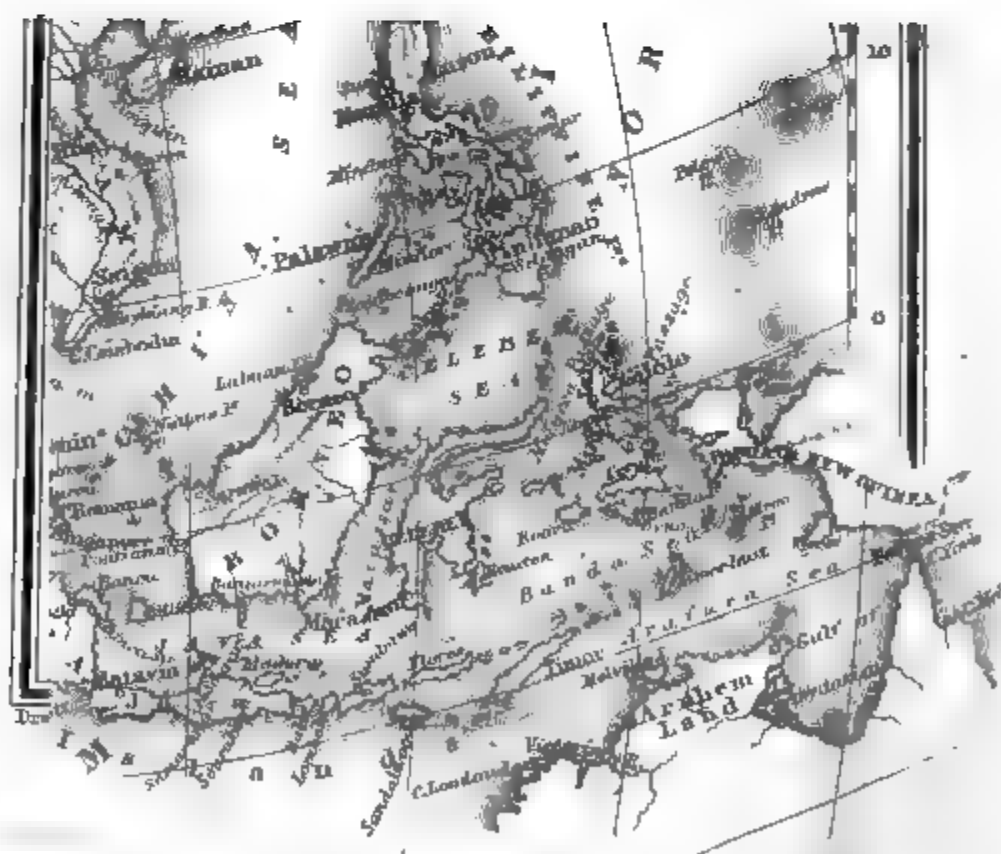
Trent, a city of the Tyrol, on the Adige. It is the *Tridentum* of the Romans, and is famous for the Council of Roman-catholic prelates, from all parts of Europe, held here from 1545 to 1563, for the purpose of suppressing the Reformation. Pop. 14,347.—46, 4 N. 11, 10 E.

Trieste' or Triest', the ancient *Ter-geste*, a maritime city, the capital of a district of Illyria, situated on a gulf of the same name, at the N. E. extremity of the Adriatic. It is a free port, with extensive commerce. Pop. 65,874.—45, 38 N. 13, 46 E.

Troppau', a fortified town, the capital of Silesia, on the Oppa. Pop. 13,861.

Tyrol' and Vor'arlberg, the princely





county of, a province of the Austrian Empire, lying between Venetia and Bavaria, and traversed in its whole extent by the Rhætian Alps. It has a great transit-trade between Germany and Italy. Extent, 10,981 square miles. Pop. 873,816.

VERSETZ' or Werschitz', a town in the Banat, with a good trade. Pop. 19,087.

VIEN'NA (*Germ.* Wien), the ancient *Vindobona*, the capital of the empire, and the seat of a celebrated university, founded in 1365. It is situated in a rich and picturesque country, on the right bank of the Danube, and is intersected by two small but rapid streams, the Wien and the Alster. Pop., including the

suburbs, etc., 578,525.—48, 12 N. 16, 23 E.

WIELICZ'KA, a town of Galicia, near which are the most extensive salt-mines in the world. Pop. 4500.

ZA'RA, the capital of Dalmatia, on the Adriatic. It is strongly fortified, and has an excellent harbour. Pop. 18,526.—44, 7 N. 15, 14 E.

Zirk'nitz, a remarkable lake in the duchy of Carniola, in Illyria. It is surrounded by limestone heights, and contains 18 subterraneous cavities, through which its waters, at certain seasons, disappear.

Zom'bor, a town in the Banat, near the Franz Canal, with a large trade in corn and cattle. Pop. 22,436.

## A S I A

Is bounded N. by the Arctic Ocean; W. by the Ural Mountains, the River Ural, the Caspian Sea, Caucasus Mountains, the Black Sea, the Sea of Marmora, the Archipelago, the Mediterranean, the Isthmus of Suez, and the Red Sea; S. by the Indian Ocean; E. by the Pacific Ocean. Its area, including the islands, is estimated at about 18 million square miles. Its population is estimated at about 798 millions.

Prevailing Races,—the Chinese, Hindoos, Turks, Arabs, Persians.

Countries.	Chief Towns.
Turkey in Asia.....	Smyrna, Aleppo, Damascus, Jerusalem, Bagdad.
Arabia.....	Mecca, Medina, Mocha.
Persia .....	Teheran, Ispahan, Shiraz.
Afghanistan & Beloo-chistan.....	Cabul, Candahar, Herat, Kelat.
Hindustan or India.....	Calcutta, Madras, Bombay, Delhi, Benares.
Eastern or Indo-Chinese Peninsula.....	Rangoon, George Town, Singapore, Amrapoor, Ava, Bangkok, Hué, Kesho, Saigon, Panomping.
Chinese Empire :	
China.....	Pekin, Nankin, Canton.
Tibet.....	Lassa, Teshoo Lomboo.
Mongolia.....	Ourga, Maimatchin.
Manchooria.....	Moukden, Kirin-Oola, Newchwang.
Corea .....	King-ki-tao.
Eastern Turkestan.....	Kashgar, Yarkand, Khoten or Ilchi.
Turkestan.....	Bokhara, Samarcand.
Asiatic Russia.....	Tobolsk, Irkutsk, Tiflis, Turkestan, Tashkend.
Japan .....	Jeddo, Miaco, Nangasaki.

**ISLANDS.** — Cyprus, Ceylon, Sumatra, Java, Borneo, Celebes, Moluccas or Spice Islands, Philippine Islands, Formosa, Japan Islands, Saghalien.

**MOUNTAINS.** — Ural, Altai, Aldan, Thian-shan, Kuen-lun, Himalaya, Hindoo-Koosh, the Ghauts, Caucasus, Ararat, Taurus, Lebanon, Sinai, Horeb.

**SEAS AND GULFS.** — Red Sea, Arabian Sea, Persian Gulf, Bay of Bengal, Gulf of Martaban, Chinese Sea, Gulfs of Siam and Tonquin, Yellow Sea, Sea of Japan, Gulf of Tartary, Sea of Okhotsk, Sea of Kamtschatka, Gulfs of Anadir and Obi, Caspian Sea, Sea of Aral.

**STRAITS.** — Babelmandeb, Ormuz, Palk's Strait, Malacca, Sunda, Macassar, Strait of La Perouse, Behring's Strait.

**PENINSULAS.** — Kamtschatka, Corea, Malay.

**CAPIES.** — Severo or North-east Cape, Baba, Ras al Had, Mussendom, Comorin, Negrais, Romania, Cambodia, Lopatka, East Cape.

**RIVERS.** — Ob or Obi, Yenesei, Lena, Amoor or Saghalien, Hoang-ho, Yang-tse-kiang, Maykiang, Saluen, Irrawady, Brahmapootra, Ganges, Indus, Oxus or Amoo, Jaxartes or Sir-Daria, Euphrates, Tigris, Kur, Jordan.

**LAKES.** — Baikal, Balkash or Tengiz, Dead Sea.

#### REMARKS.

Asia extends from  $1^{\circ} 20'$  to  $78^{\circ} 25'$  N. lat., and from  $26^{\circ}$  to  $190^{\circ}$  E. long. Its length, from the mouth of the Dardanelles to the Islands of Japan, on the parallel of  $40^{\circ}$ , is about 6000 miles; its breadth, from the S. extremity of Malacca to Cape Severo in Siberia, is about 5400 miles. It is the largest of the great divisions of the earth, containing about a third of the whole land on the face of the globe, and about two-thirds of the whole human race.

Every variety of climate and of soil occurs in this vast region. It is watered by magnificent rivers, and intersected by stupendous mountains, among which is the Himalaya chain, the loftiest in the world.

In many respects Asia is the most interesting quarter of the globe. Here man was created, and hence proceeded the tide of population which spread in time over the rest of the world. It was the theatre as well of all the grand dispensations by *which God prepared the world for the advent of the Messiah, as of the labours and sufferings by which our Saviour accomplished the salvation of mankind.*

## EXERCISES.

What are the boundaries of Asia? What is its extent in square miles? What is the amount of its population? Name the principal countries which it contains. What are their chief towns? Name the chief islands of Asia, and point them out on the map. Name the principal mountains, and trace them on the map. Name and point out the seas and gulfs. What are the chief straits? Point them out. Name and point out the capes. What are the principal rivers? Trace their course. What are the chief lakes? Where are the Eastern Peninsula, Turkestan, China, Asiatic Russia, Japan? etc. What is the capital of Hindostan? Of Tibet? Of Corea? Of Persia? Of China? etc.

Where are Ceylon, Borneo, Cyprus, Celebes, Sumatra, Java, the Japan Islands? etc. Where are Mount Caucasus, Lebanon, Taurus, Horeb, Ararat, the Altai Mountains, Sinai? etc. Where are the Bay of Bengal, Sea of Okhotsk, Persian Gulf, Arabian Sea, Yellow Sea, Caspian Sea? etc.

Where are the Straits of Ormuz, of La Perouse, of Behring, of Malacca, Babelmandeb? etc. Where are Cape Comorin, Negrais, Lopatka? etc. Trace the course of the Hoang-ho, the Ganges, the Obi, the Tigris, the Yenesei, the Euphrates, the Indus, the Yang-tse-kiang, etc.

Between what degrees of latitude and longitude does Asia extend? What are its length and breadth? What proportion does it bear to the other great divisions of the earth? What is its extent, including its islands? Can it boast of magnificent rivers and mountains? In what respects is Asia the most interesting quarter of the globe?

## TURKEY IN ASIA

Is bounded N. by the Dardanelles, the Sea of Marmora, the Straits of Constantinople, the Black Sea, and Russia; W. by the Archipelago and the Mediterranean; S. by Arabia; E. by Persia and Russia. It contains about 660,000 square miles. Its population is estimated at about 16,050,000.

Divisions.	Chief Towns.
Asia Minor, comprehending	
Anatolia .....	SMYRNA, Brusa, Scutari, Kuttaiah, Angora.
Caramania.....	Konieh, Adana, Tarsus, Kaisariah.
Sivas or Room.....	Tokat, Sivas, Amasia.
Armenia .....	Erzroum, Trebizond, Kars.
Kurdistan .....	Van, Bitlis.
Irak-Arabi ( <i>Chaldea</i> ) .....	Bagdad, Bassorah, Hillah.
Algezira ( <i>Mesopotamia</i> ) .....	Diarbekir, Mosul, Orfa.
Syria .....	ALEPPO, Damascus, Antioch, Hamah, Homs, Tripoli, Beyrout.
Palestine or the Holy Land..	Jerusalem, Acre, Tabaria, Nablousa, Jaffa, Gaza.

**ISLANDS.**—Cyprus, Ipsera, Kos, Lesbos, Patmos, Rhodes, Samos, Scarpanto, Scio.

**MOUNTAINS.**—Taurus, Olympus, Ida, Lebanon, Ararat.

**LAKES.**—Van, Asphaltites or the Dead Sea.

**RIVERS.**—Kizil-Irmak, Sakaria, Sarabat, Meinder, Orontes, Jordan, Euphrates, Tigris.

#### REMARKS.

Turkey in Asia extends from 30° to 42° N. lat., and from 26° to 48° 30' E. long. Its length, from Cape Baba on the Archipelago to Mount Ararat, is 950 miles; its breadth, from the southern border of Syria to the Black Sea, is 760 miles.

Asiatic Turkey may be regarded as in general mountainous, although it has many extensive plains of great beauty and fertility. The climate is delightful; and the soil, particularly in the valleys, extremely productive. Fruits of the finest kinds grow spontaneously, or are produced abundantly by cultivation; but tillage is only partially attended to,—by far the greater part of the country being occupied by shepherds and their flocks. The mountains are clothed with woods, and the shores of the Black Sea present the appearance of continued forests. Of the domestic animals, the most remarkable are the sheep, and the goats of Angora, from the hair of which the best camlets are made. The manufactures, besides Angora stuffs, are carpets, shawls, gold and silver thread, leather, and silk and cotton goods. These, with rhubarb and other drugs, form the chief articles of commerce. Among the wild animals are the lion (which never appears farther west than the Euphrates), the hyena, the jackal, the ibex, and the antelope. With the exception of the copper-mines of Tokat, the minerals are neglected. At Brusa, near the foot of Mount Olympus, there are hot medicinal springs.

Turkey in Asia was one of the most celebrated regions in the ancient world. Among the cities which once held a conspicuous place in its history, but are now either in ruins or totally destroyed, were Troy, Sardis, Ephesus, Antioch, Tyre, Sidon, Baalbec, Tadmor or Palmyra, Nineveh, and Babylon. The country is now inhabited by various races. The Turcomans occupy the high ground in the interior, where they pasture their flocks during the summer, descending in winter to the sheltered valleys in the vicinity of towns. The most warlike *and predatory* tribes are the Koords, most of whom dwell in *tents*, a few only having fixed habitations. The prevailing

religion is the Mohammedan; and the Turks of Asia are peculiarly bigoted. The Greek and Armenian Christians are numerous; there are a few Jews; and two or three wandering tribes still retain their pagan superstitions. The mountain-tracts of Lebanon in Syria contain a number of tribes nearly independent, of which the chief are the Druses, Metoualis, and Maronites, the last being Christians.

## EXERCISES.

What are the boundaries of Turkey in Asia? What is its extent in square miles? What is its population? Name its divisions. What are the principal towns of Asia Minor? Of Algezira? Of Irak-Arabi? Of Kurdistan? Of Armenia? Of Syria? Of Palestine? Name the principal island, and the chief mountains. Name the lakes. Name the principal rivers.

Where are Jerusalem, Smyrna, Hillah, Diarbekir, Aleppo, Damascus, Beyrout, Antioch, Asphaltites or the Dead Sea, Jaffa, Acre, Tabaria, Mosul, the Meinder, the Jordan, Angora, the Euphrates? etc.

Between what degrees of latitude and longitude is Turkey in Asia situated? What are its length and breadth? What is its general aspect? What is the nature of its climate and soil? Does it abound in fruits? How is the greater part of the country occupied? What places are clothed with woods and forests? What are the most remarkable of the domestic animals in Asiatic Turkey? Mention some of its wild animals. Are the minerals of the country attended to? Where are hot medicinal springs found? What celebrated ancient cities are now either in ruins or totally destroyed? How is Asiatic Turkey inhabited? What race occupies the interior of the country? Which of the tribes is the most warlike and predatory? What is the prevailing religion? What Christians are numerous in Asiatic Turkey? Do any tribes still retain their pagan superstitions? Name the chief tribes in the mountain-tracts of Lebanon.

## ARABIA

Is bounded N. by Syria and the Euphrates; W. by the Red Sea and the Isthmus of Suez; S. by the Indian Ocean; E. by the Gulf of Oman and the Persian Gulf. It contains about 1,000,000 square miles. Its population is estimated at about 5,000,000.

## Divisions.

## Chief Towns.

Hedjaz .....	MECCA, Medina, Jiddah, Yembo.
Lachsa .....	Lachsa, El Katif.
Nedjed .....	Riad.
Oman .....	Muscat, Rostak, Muttra.
Hadramaut.....	Makallah.
Yemen .....	Sana, Mocha, Damar, Aden.



ISLAND.—Bahrein.

GULFS.—Suez, Akabah, Oman.

MOUNTAINS.—Sinai, Horeb, Serbal, Arafat.

CAPIES.—Mussendom, Ras al Had, Babelmandeb.

#### REMARKS.

Arabia extends from 12° 40' to 35° N. lat., and from 32° 37' to 60° E. long. Its length, from the Straits of Babelmandeb to the Euphrates, is about 1500 miles; its breadth, from Ras al Had to Jiddah on the Red Sea, is about 1300 miles.

The most remarkable feature in Arabia is the vast extent of sandy deserts which surround its elevated interior,—diversified only by a few spots of fertility called *oases* or islands. Over these dreary wastes travellers pass in large companies or caravans; exposed, at almost every step, to the imminent peril of their lives. Their sufferings from excessive heat and the want of water are often extreme; and the ocean, in its most violent agitation, is not so appalling as the Arabian desert in a storm, when the sand, lifted from its bed, overwhelms every thing in its way. The districts on the coast are fertile and beautiful, producing the tamarind, the Indian-fig, the date-palm, the cotton-shrub, the pomegranate and orange trees, the coffee-shrub, and the amyris opobalsamum, which yields the celebrated balm of Mecca. Arabia has long been famed for the abundance of its odoriferous plants. The most noted of the domestic animals are the horse and the camel; the latter is by the natives called emphatically the ship of the desert. Of the wild animals, the antelope, the wild ass, the wolf, fox, jackal, hyena, and panther, are the most remarkable.

The desert of Arabia is inhabited chiefly by wandering tribes called Bedouins, dwelling in tents, who subsist by their flocks and by the plunder of passing caravans. The Arabians on the coast lead a more settled life, and enjoy the benefits of commerce; the valuable pearl-fisheries of the Persian Gulf are principally in their hands.

Yemen, or the Happy Arabia, is the finest district; it is the native country of the coffee-plant. The most powerful state is Muscat on the Persian Gulf, the Imaum of which calls himself Sultan of Oman, and claims sovereignty also over the eastern coast of Africa, from Cape Guardafui to Cape Delgado.

The religion of Mohammed, who was born at Mecca A.D. 569, is professed throughout Arabia, as well as generally over the East. His native city, and Medina, which contains his

tomb, attract vast crowds of pilgrims. About the middle of the eighteenth century, a sect called the Wahabees sprang up in Arabia, who rejected the divine honours paid to Mohammed, considering him only an inspired prophet, and holding as their peculiar tenet that God alone should be adored. They had at one time overrun nearly all Arabia; but Mohammed Ali, pasha of Egypt, and his son Ibrahim, drove them from Mecca and Medina, capturing their chief, Abdallah, who was beheaded at Constantinople in 1819. A descendant of this chief is at present the Imaum of the important district of Nedjed, the headquarters of the Wahabees.

## EXERCISES.

What are the boundaries of Arabia? What is its extent in square miles? What is the amount of its population? Name its divisions. What are the principal towns of Hedjaz? Of Yemen? Of Hadramaut? Of Oman? Of Lachsa? Of Nedjed? Name the islands and mountains of Arabia. Where are Mocha, Mecca, Rostak, Sana, Aden? etc.

Between what degrees of latitude and longitude is Arabia situated? What are its length and breadth? What is its most remarkable feature? How do travellers pass over its dreary wastes? To what sufferings and dangers are they exposed? What is the appearance of the districts on the coast? What valuable trees and shrubs do they produce? What are the most noted domestic animals of Arabia? Which of its wild animals chiefly deserve notice? By what people is the interior of Arabia chiefly inhabited? How do they subsist? In what manner do the Arabs on the coast live? What is the native country of the coffee-plant? Which is the most powerful state? What religion is professed in Arabia? What new sect sprang up about the middle of the eighteenth century? What was the peculiar tenet of this sect? What progress did they make? Who drove them from Mecca and Medina? What became of their chief?

## PERSIA

Is bounded N. by Russia, the Caspian Sea, and Turkestan; W. by Turkey in Asia; S. by the Persian Gulf; and E. by Afghanistan and Beloochistan. It contains about 450,000 sq. miles. Its population is estimated at about 5,000,000.

## Provinces.

## Chief Towns.

Azerbijan.....	Tabriz, Urumiah, Maragha.
Ghilan.....	Resht.
Mazanderan.....	Sari, Balfrush, Amol.
Khorassan.....	Mushed, Yezd, Nishapoor.
Irak-Ajemi.....	TEHERAN, Ispahan, Casbin, Hamadan, Kermanshah.
Luristan.....	Khorram-abad.
Khuzistan.....	Shuster.
Farsistan (the ancient Persia).	Shiraz, Bushire.

Provinces.	Chief Towns.
Laristan .....	Lar.
Kerman.....	Kerman, Gombroon.
Astrabad.....	Astrabad.

ISLANDS.—Ormuz, Kishm, Karak.

LAKES.—Urumiah, Bakhtegan.

MOUNTAINS.—Elburz, Elwund.

RIVERS.—Aras or Araxes, Kizil-Ouzen.

#### REMARKS.

Persia extends from 26° to 39° N. lat., and from 44° to 62° E. long. Its length, from the junction of the Euphrates and Tigris to the borders of Afghanistan, is about 760 miles; its breadth, from Astrabad on the Caspian Sea to the Persian Gulf, is about 700 miles.

Persia, called *Iran* by the natives, is in general mountainous. From the plain of Ispahan to Beloochistan, there is a succession of deserts; and throughout the southern provinces, the plains as well as the mountains are sterile and bare. The northern districts, on the contrary, are remarkable for their beauty and fertility. The rivers of Persia are few and small,—and, instead of falling into the sea, most of them flow into lakes in the interior. Wheat, rice, barley, and millet, are the most usual crops. Among the trees are the cedar, the cypress, and other species of pine, and the sumach, so useful in dyeing and tanning. The fruits are singularly fine. The date, the fig, the pomegranate, the almond, the peach, and the apricot, are natives of the country; and the vine and orange-tree grow here luxuriantly. The mulberry, cotton-shrub, and sugarcane, are common articles of culture. The horses of Persia, if inferior to those of Arabia in speed, surpass them in beauty. The sheep are remarkable for their length of tail, which sometimes weighs more than 30 pounds. Among the wild animals are the lion, the leopard, the panther, the bear, and the wild boar.

Manufactures, once in a flourishing state, are now almost annihilated,—owing chiefly to the destructive wars with which, for nearly a century, the country has been almost incessantly ravaged. Its carpets, silks, brocades, and velvets, woollen and cotton cloths, and camlets of goat and camel hair, are still highly valued. Politeness, hospitality, and gayety characterize the Persian manners. The established religion is the Moham-

medan; but there are a few Christians and Jews, and some pagans who still adhere to the ancient worship of fire. The government is despotic.

EXERCISES.

What are the boundaries of Persia? What is its extent in square miles? What is the amount of its population? Into what provinces is it divided? Name the principal towns. Where are Hamadan, Ispahan, Teheran, Ormuz, Bushire, Casbin? etc. Name the islands, lakes, mountains, and rivers.

Between what degrees of latitude and longitude is Persia situated? What are its length and breadth? What is its general aspect? In what direction does a continued chain of deserts extend? What is the appearance of the mountains and plains in the south? For what are the northern districts remarkable? What are the most usual crops? Mention some of the forest-trees. What is remarkable in the fruits? Mention some of the fruit-trees. What other plants and shrubs are cultivated? For what qualities are the horses and sheep of Persia remarkable? Mention some of its wild animals.

In what state are the manufactures of Persia? What manufactures of superior texture does it still retain? By what qualities are the manners of the Persians characterized? What is the established religion? To what worship do some of the inhabitants still adhere? What is the government of Persia?

## AFGHANISTAN

### (INCLUDING BELOOCHISTAN)

Is bounded N. by Turkestan; W. by Persia; S. by the Indian Ocean; E. by Hindostan. It contains about 400,000 square miles. Its population is estimated at about 6,000,000.

Divisions.	Chief Towns.
Herat.....	Herat.
Cabul.....	CABUL, Jelalabad, Peshawur, Ghuznee.
Candahar.....	Candahar.
Seistan.....	Dooshak.
Beloochistan.....	Kelat.

**MOUNTAINS.**—Hindoo Koosh, Soliman Mountains, the Paropomisan or Ghor Mountains.

**RIVERS.**—Indus, Cabul, Helmund.

**LAKE.**—Hamoon or Seistan.

## REMARKS.

Afghanistan, or, as it is also called, the kingdom of Cabul, extends from  $25^{\circ}$  to  $36^{\circ}$  N. lat., and from  $58^{\circ}$  to  $72^{\circ}$  E. long. Its length from N. to S. is 760 miles; its breadth, 640 miles.

Its surface is remarkably varied. The northern districts are composed of rugged mountains, a branch of the Himalaya, many of their summits being covered with perpetual snow. They enclose several fine valleys, which afford a great extent of rich pasture. The southern part, on the contrary, comprising the districts of Seistan and Beloochistan, has vast and dreary plains of sand, which is blown by the winds, and continually encroaches on the cultivated and productive soil.

The kingdom of Cabul was once very powerful, having reduced to subjection Cashmere, Herat, and part of Western India. Afterwards, owing to dissensions among its princes, the country was divided into four principalities—Cabul, Peshawur, Candahar, and Herat—and all its foreign possessions were lost. As its disorders appeared to threaten the tranquillity of British India, Lord Auckland, the governor-general, took measures, in 1839, for the restoration of Shah Sujah, the de-throned sovereign of the whole country. The British army met no serious obstacle in its march, and Shah Sujah was reinstated in his dominions. But the enmity of the natives to foreign rule was so invincible, that the British, after suffering terrible disasters, finally withdrew from the country in 1842, although not until they had vindicated the superiority of their arms.

The Afghans are a brave, hardy, and warlike race, divided into many separate tribes or communities. The prevailing religion is Mohammedan. The Beloochees are a fierce and predatory people, who infest the routes between India and Persia.

## EXERCISES.

What are the boundaries of Afghanistan? What is its extent in square miles? What is the amount of its population? What are its divisions? What are its principal towns? Where are Peshawur, Cabul, Kelat? etc. What are its mountains, rivers, and lakes?

Between what degrees of latitude and longitude is Afghanistan situated? What are its length and breadth? What is the nature of the country in the north? What in the south? What countries were formerly subject to the kingdom? What losses did it sustain? How did Britain interfere in its affairs? Whom did the British replace on the throne? Have they since withdrawn from the country? What is the character of the Afghans? Of the Beloochees?

# HINDOSTAN OR INDIA

Is bounded N. by the Himalaya Mountains, separating it from Tibet; W. by Afghanistan, Beloochistan, and the Indian Ocean; S. by the Indian Ocean; E. by the Bay of Bengal and the Eastern or Indo-Chinese Peninsula. It contains an area estimated at 1,463,212 square miles. Its population is about 190,904,783.

### Principal Divisions and Provinces.

### Chief Towns.

### **I. Independent States :**

**Nepaul.....Catmandoo.**

**Bootan or Bhotan.....Tassisuden.**

## II. Presidency of Bengal :

**Bengal.....CALCUTTA, Moorshedabad, Bur-**  
**hampore, Burdwan, Dacca.**

**Assam ..... Gowhatti.**

**Orissa .....Cuttack, Juggernaut or Pooree.**

Behar.....Patna, Behar, Gaya, Dinapore.

**Native States :**

**Sikkim ..... Tumloong.**

**Coosh Behar.....Coosh Behar.**

## Garrow and Cossiga States....

**Muneeapore.....Muneeapore.**

**Tipperah.....**

**French Possessions.....Chandernagore.**

### III. North-West Provinces and Oude :

**Benares.....Benares, Goruckpore, Mirzapore.**

**Allahabad .....Allahabad, Cawnpore, Banda.**

**Agra.....Agra, Furruckabad.**

**Rohilkund.....Bareilly, Pilleebheet.**

**Meerut.....Meerut, Saharunpore.**

**Kumaon ..... Almora.**

**Ajmere.....Ajmere.**

**Oude.....Lucknow, Fyzabad.**

**Native States:**

**Rampore.....Rampore.**

**Gurwhal.....Serinagur.**

#### IV. The Punjab :

**Lahore or the Punjab.....Lahore, Amritsir, Jullundhur, Mool-  
tan, Peshawur.**

**Sirhind.....Loodianah, Umballah.**

**Delhi.....Delhi, Kurnal, Rohtuck.**

**Hill States ..... Simla.**

**Native States :**

**Putteala.....l'utteeala.**

**Hill States.....Nahun, Rampore.**

**Bhawulpore.....Bhawulpore.**

**Cashmere.....Cashmere or Serinagur, Leh.**

**Rajpootana.....Jeypore, Kotah, Joodpore.**

**Scindia's Territory (Gwalior). Gwalior, Oujein.**

### Chief Towns.

**Nizam's Territory.....Hydrabad.**

**Sagar and Nerbudda.....Hoshungabad, Sagar.**

**North Canara.....Honore.**

**Portuguese Possessions.....Panjim or New Goa.**

**Coorg.....Mercara.**

**French Possessions.....Pondicherry, Carrical, Mahé.**

**CAVES.**—Comorin, Point Calimere, Point Palmyras.

## REMARKS.

Hindustan extends from  $8^{\circ} 4'$  to  $36^{\circ}$  N. lat., and from  $66^{\circ}$  to  $99^{\circ}$  E. long. Its length, from Cape Comorin to the Himalaya Mountains, is about 1800 miles; its greatest breadth, from the Indus to the Brahmapootra, about 1500 miles.

In a country so extensive there is, of course, much variety of aspect. On the north, the Himalaya Mountains, the highest in the world, present a stupendous frontier. The Ghauts, on the east and west, form a long and steep barrier parallel to each coast; while the central chain of the Vindhya follows the course of the Nerbudda. A series of rocky mountains reaches from the confines of Mooltan to Tatta; and of sandy hills from Cutch to the Sutlej. In the province of Sinde, there are deserts of sand, which, raised by the burning south wind, often buries houses and cultivated fields; and in Delhi, between Roodehpore and Almora, there is a sandy desert twenty miles long, covered with briers and resinous shrubs. Numerous savannas occur in the northern provinces. At the mouths of the rivers, as well as along a great part of their banks in the interior, the soil is marshy. But more generally Hindostan presents beautiful plains, fields adorned with luxuriant harvests, which are gathered twice in the year, and valleys smiling in all the beauty and variety of vegetation.

Except in Cashmere, Kumaon, and Nepaul, where the seasons show their more agreeable vicissitudes, the climate of Hindostan is diversified only by the dry and rainy months. These are produced by the south-west and north-east monsoons; and it is remarkable that they happen regularly at different periods of the year on the opposite coasts of Coromandel and Malabar. In Bengal the hot or dry season is from March to the end of May; the rainy, from June to October. By the latter end of July all the lower parts of the country, bordering the Ganges and Brahmapootra, are overflowed, forming an expanse of water more than 100 miles wide. By these yearly inundations great fertility is imparted to the soil, which in many places is a rich vegetable mould six feet deep. The luxuriance of its vegetation is scarcely equalled in any other region of the globe. Of the stately forest-trees, one of the most valuable is the teak, which rivals the oak in firmness and durability, and is now largely used in shipbuilding. Of the fruit-trees, the most noted are the various species of palma. Rice, the chief food of



the Hindoos, is the principal article of cultivation. Wheat, barley, millet, and maize are also raised; besides the sugarcane, the mulberry-tree, cotton, indigo, pepper, and various kinds of delicious fruits. Attention has lately been turned to the cultivation of the tea-plant, which grows wild in the province of Assam.

Among the domestic animals are the buffalo, camel, and elephant. The Hindoo cattle are distinguished by a hunch on the shoulders; and the sheep have hair instead of wool.

Among the wild animals are the leopard, which is frequently hunted; the lion, seen only among the northern mountains; the Bengal tiger; and the rhinoceros.

Hindustan is rich in minerals, comprising iron, copper, tin, gold, and coal, which is extensively distributed. Diamonds are found in several districts; the most valuable are those of Orissa and Golconda.

The Hindoos have carried some manufactures to great perfection. The shawls of Cashmere, made of the hair of the shawl-goat, are highly prized; and, until they were surpassed by the cotton manufactures of Britain, the Indian muslins were the finest in the world. In delicate works in ivory and metals, the Hindoos are still almost unrivalled. Indigo, opium, cotton, jute, sugar, muslins, calicoes, raw silk, pepper, rice, and diamonds are the chief exports.

The government of British India is vested in a Viceroy or Governor-General and Council resident at Calcutta, and a Secretary of State and Council resident in London; there are also Governors, Lieut.-Governors, and Chief Commissioners for the Bengal, Bombay, and Madras Presidencies and their several subdivisions. The independent and tributary states are governed by native princes. The total area of British India is 988,091 square miles, and the population 150,767,851. The native and independent states have an area of 596,790 square miles, with a population of 47,909,199. The area of the French and Portuguese possessions is 1254 square miles, and the population 517,149.

The internal commerce of India is being greatly facilitated by an extensive system of railways. The canals are on a grand scale, but they are more designed for irrigation than for traffic. The annual value of the imports of the Indian empire is £56,000,000 sterling, and the exports £67,000,000. The annual revenue derived from land and other taxes exceeds £48,000,000 sterling. The army, including British and local troops, amounts to 183,000 men.

The religion of the Hindoos is Brahminism, their deities being Brahma, Vishnu, and Siva. The people are divided into three *castes*: Brahmins or priests, the military class, and agriculturists. In general, they adhere strictly to their particular class; but those who fall off and are degraded form a fourth denomination of *Pariahs*. The Mohammedan religion is also prevalent in several parts of India. In 1793 the first missionary institution was established; and since that period several hundred churches have been erected, besides numerous schools both for male and female natives.

## EXERCISES.

Name the boundaries of Hindostan. What is its extent in square miles? What is the amount of its population? Into what great divisions may it be portioned? Name the independent states. What are the principal divisions and provinces of the Presidency of Bengal? Of the North-West Provinces? Of the Punjab? Of the Central Provinces? Of the Presidency of Bombay? Of the Presidency of Madras? Name the territories that are under the immediate control of the Governor-General.

What are the chief towns in the Bengal Presidency? In the North-West Provinces? In the Punjab? In the Central Provinces? In the Presidency of Bombay? In the Presidency of Madras? Where are Catmandoo, Patna, Lahore, Salem, Panjim, Pondicherry, Allahabad, Hyderabad, Bombay, Calcutta, Benares, Bejapore, Moorshedabad, Mangalore? etc. Where are Ceylon, the Maldives, Elephanta? Where are the Gulf of Cutch, of Cambay, the Bay of Bengal? What are the principal mountains of Hindostan? Name its principal rivers. Trace their course. Name the principal capes.

Between what degrees of latitude and longitude is Hindostan situated? What are its length and breadth? What mountains form its northern frontier? What mountains run parallel to its eastern and western coasts? What is the direction of the central chain? Where do a series of rocky mountains and of sandy hills occur? In what places are deserts of sand? Where do numerous savannas occur? Where is the soil marshy? What is the more general aspect of Hindostan? In what provinces do the seasons show their more agreeable vicissitudes? How is the climate of Hindostan in general diversified? By what are those varieties caused? What is remarkable about the climate on the coasts of Malabar and Coromandel? What are the periods of the dry and rainy seasons in Bengal? What is the extent of the inundation on the course of the Ganges and Brahmapootra? What is the quality of the soil? Mention one of the most valuable forest-trees. What are the most noted of the fruit-trees? What is the principal article of cultivation? What are the other articles of cultivation?

Mention some of the domestic animals of Hindostan. What are its most remarkable beasts of prey? What are the most valuable minerals? In what provinces are the most valuable diamonds found? In what manufactures have the Hindoos attained consider-

able dexterity? In what kind of works are they almost unrivalled? What are the chief exports from Hindostan? By what country is the greater part of India now governed? What are the extent and population of the British territory? What are the area and population of the Native and Foreign States?

What has tended to facilitate the internal commerce of India? What is the annual value of imports from India into Britain? And of exports? What is the amount of annual revenue collected in India? What is the religion of the Hindoos, and the names of their deities? Into what classes are the people divided? When was the first missionary institution established?

## THE EASTERN OR INDO-CHINESE PENINSULA

Is bounded N. by Tibet and China; W. by Hindostan and the Bay of Bengal; S. by the Straits of Malacca and the Gulf of Siam; E. by the Chinese Sea and the Gulf of Tonquin. It contains about 700,000 square miles. Its population is estimated at 22,000,000.

Divisions.	Chief Towns.
<b>British Territories:</b>	
Chittagong.....	Chittagong or Islamabad.
Aracan.....	Aracan.
Pegu.....	Prome, Rangoon.
Tenasserim Provinces (Martaban, Ye, Tavoy, and Tenasserim).....	Moulmein, Aruherst, Martaban, Tavoy, Mergui, Tenasserim.
Eastern Straits Settlements (Prince of Wales Island or Pulo Penang, Province Wellesley, Malacca, and Singapore).....	
Birmah or Ava.....	AMARAPOORA, Ava.
Siam.....	Bankok, Siam or Yuthia.
Malay States.....	Quedah, Salangore.
<b>Cochin-China or Empire of Annam:</b>	
Cochin-China Proper.....	HUE, Turon.
Tonquin.....	Kesho or Cachao.
Saigon or Lower Cochin-China...	Saigon.
Cambodia.....	Panomping.
Laos.....	Lanchang.

**ISLANDS.**—Pulo-Penang or Prince of Wales Island, Singapore.

**GULFS.**—Martaban, Siam, Tonquin.

**RIVERS.**—Irrawady, Saluen, Menam, Menam-kong or Cambodia, Sangkoi.

**CAPES.**—Negrais, Romania, Cambodia.

**STRAITS.**—Malacca, Singapore.

## REMARKS.

The Eastern Peninsula extends from  $1^{\circ} 20'$  to  $28^{\circ}$  N. lat., and from  $91^{\circ}$  to  $109^{\circ}$  E. long. Its greatest length from N. to S. is about 1800 miles; its breadth, from Cape Negrais to the E. of Cochin-China, about 960 miles.

This portion of Asia is distinguished by its long parallel chains of mountains, enclosing valleys, each watered by a considerable river. Where rain does not fall abundantly, or remain long, the soil is covered by a light powder barren as sand, or a crust as hard as rock. The banks of the rivers and the sides of the mountains are clothed in perpetual verdure, and show woods in comparison with which our loftiest trees are but dwarfs. Among the forest-productions are the eagle-wood, rose-wood, sandal-wood, teak, iron-wood, the true cinnamon, which is here indigenous, the sycamore, the Indian-fig, the banana, the bignonias, and the fan-palms. The forests are the haunts of various species of monkeys, tigers, and elephants. The elephants of Siam are particularly admired for their beauty and sagacity. Fine fruits, aromatic and medicinal plants, the sago, the cocoa, the banana, and other nutritious plants, grow in abundance. Rice, sugar, cotton, indigo, and pepper, are cultivated to a great extent.

These countries are rich in minerals. Besides gold and silver, their mines produce copper, tin, iron, lead, antimony, and zinc. The native governments are all despotic in the highest degree. The prevailing religion is Buddhism. The inhabitants of the Malay states are Mohammedans, and the higher classes of the Annamese are followers of Confucius.

## EXERCISES.

What are the boundaries of the Eastern Peninsula? What is its extent in square miles? What is the population? Name the provinces belonging to Britain. What are the other divisions and chief towns? Name the islands, gulfs, rivers, capes, and straits.

Between what degrees of latitude and longitude is the Eastern Peninsula situated? What are its length and breadth? By what circumstance is it distinguished in its external aspect? What contrast is presented between those places where rain is not abundant and the banks of the rivers and sides of the mountains? What are the most noted of its forest-productions? Of what wild animals are these forests the haunts? For what are the elephants of Siam remarkable? What productions grow here in abundance? What crops are cultivated to a great extent? What metals do the mines of this country produce? What are the native governments? What is the prevailing religion?

## THE CHINESE EMPIRE

Is bounded N. by Asiatic Russia; W. by Asiatic Russia, Eastern Turkestan, and Hindostan; S. by Hindostan, Birmah, and Annam; E. by the Yellow Sea and the Pacific Ocean. The countries which it embraces are—China Proper, Tibet, Mongolia, Manchooria, and Corea. Its area is estimated at 4,200,000 square miles, and its population at 477,500,000.

### 1. CHINA

Is bounded N. by Mongolia and Manchooria; W. by Mongolia, Tibet, and Birmah; S. by Laos, Annam, and the Chinese Sea; E. by the Yellow Sea and the Pacific Ocean. It contains about 1,600,000 square miles. Its population is estimated at 450,000,000.

Provinces.	Chief Towns.	Provinces.	Chief Towns.
Pe-tche-li .....	PEKIN.	Yun-nan .....	Yun-nan.
Shan-tung .....	Tsi-nan.	Kuei-choo .....	Kuei-yang.
Kiang-su .....	Nankin.	Se-chu-en .....	Ching-too.
Ngan-hoei .....	Ngan-king.	Shen-si .....	Si-ngan.
Che-kiang .....	Hang-choo.	Shan-si .....	Tai-yuen.
Kiang-si .....	Nan-chang.	Ho-nan .....	Kai-fong.
Fo-ki-en .....	Foo-choo.	Hoo-pe .....	Voo-chang.
Quang-tung .....	Canton.	Hoo-nan .....	Chang-cha.
Quang-si .....	Quei-ling.	Kan-si .....	Lan-choo.

ISLANDS.—Hainau, Macao, Hong-Kong, Formosa, Chusan, Loo-Choo.

GULF.—Pe-tche-li.

MOUNTAINS.—Loong, Pe-ling, Sin-ling, Tan-sia-Shan, Kioo-long-Shan, Nan-ling, Me-ling.

LAKES.—Tong-ting, Poyang, Tai, Hong-tse.

RIVERS.—Hoang-ho or Yellow River; Yang-tse-kiang or Blue River; Choo-kiang or River of Canton; Pei-ho or River of Pekin.

#### REMARKS.

China, properly so called, extends from 20° to 42° N. lat., and from 98° to 123° E. long. Its greatest length from N. to S. is about 1600 miles; its breadth varies from 900 to 1300 miles.

China may be regarded, in general, as a flat and fertile country; although, in some places, its aspect is varied by chains of mountains of considerable height. One of the most

remarkable features is the number and magnitude of its rivers which doubtless contributed in a great degree to its early civilisation. In a country so extensive, the climate is necessarily various. In the southern provinces the heat is greater than in Bengal; in the northern, the rigour of a European winter is experienced. In no region of the East has agriculture attained greater perfection. The cultivation of every spot is requisite for the support of the excessive population; and the greatest ingenuity has been displayed in forming the sides of lofty mountains into terraces, to which water is conveyed by buckets, or by conduits from reservoirs in which the rain is collected at the top. The principal article of culture is rice, which is raised chiefly in the southern parts of the empire. The Chinese have discovered a method of cultivating even the beds of their lakes, ponds, and rivulets, where the *petsi*, or water-chestnut, is planted, and produces a wholesome and delicate fruit. Besides the orange, tamarind, and mulberry trees (of which there are two species, paper being made from the bark of one), there is the tallow-tree, yielding a green wax, capable of being manufactured into candles. But of all the productions of China the most remarkable is the tea-plant, which grows chiefly in the hilly parts of the country. It is about five feet high; its leaves are narrow, and serrated on the edges; and it blossoms from October to January.

In a country so densely peopled, there are but few forests or jungles to harbour wild beasts. Such as are occasionally seen do not differ from those of the neighbouring countries.

Among the minerals are gold, silver, quicksilver, a natural composition of iron and zinc called *tutenag*, a species of white copper named *petong*, and the fine clay and earths called *kaolin* and *petuntse*, from which porcelain is manufactured. The district around Pekin abounds in coal, which is usually pounded and baked with water into cakes before burning.

Among this industrious people almost every kind of manufacture is found; but those of porcelain, silk, cotton, and paper, are the most noted. Like the Hindoos, the Chinese excel in delicate works in ivory and metal. Their chief exports are silk, porcelain, and, above all, tea. Of the imports from Europe, the most important are iron, steel, lead, flints, zinc, quicksilver, woollens, cottons, clockwork, and machinery. The chief imports from India are cotton and opium. Trade with foreigners was long confined to the city of Canton; the ports of Amoy, Foo-choo, Ning-po, and Shanghai were opened in 1842; but

it was not until 1860, when the city of Pekin was captured by the allied armies of Britain and France, that anything like free commercial intercourse with other nations was permitted by the Chinese Government. Of the national works of China the most remarkable is the Great Wall on the northern frontier, about 1400 miles long, supposed to have been built about 200 years before the Christian era. The Imperial Canal extends from the neighbourhood of Tien-tsin (the port of Pekin) to Hang-choo, a distance of 700 miles; it is 200 feet broad at the surface; in passing through the elevated tracts it is often 60 or 70 feet in depth; in low marshy spots it is raised by embankments sometimes 20 feet above the level of the surrounding country; so that in some places its surface is higher than the walls of the cities by which it passes.

The government of China has long been a despotic monarchy. The present dynasty is of Manchoo origin, and has had possession of the throne since 1644. The Chinese have a very peculiar written language, with a distinct character for every word, of which there are many thousands, though only between three and four thousand are in general use, and even these may be resolved into about three hundred primitives or keys. Printing from wooden blocks was in use here long before the art became known in Europe. In China the literati, or learned men, are held in great honour, and occupy all the most important offices of state. The people are placid and affable in disposition, but artful and fraudulent; the ruling classes, though intelligent, are corrupt and unprincipled. The murder of infants by exposure is said to be common. The notions of female beauty are peculiar; and the admiration of small feet subjects women to much pain and inconvenience in obtaining this indispensable charm. The religion of the government and learned men is that of Confucius, who flourished about five hundred years before the Christian era, and taught almost a pure deism; the common people are addicted to various superstitions, particularly the worship of Fo, apparently the Boodh of the Hindoos.

#### EXERCISES.

What are the boundaries of China? What is its extent in square miles? What is the estimated number of its inhabitants? Name its provinces, with their chief towns. Name its mountains, islands, lakes, and rivers.

Between what degrees of latitude and longitude is China situated? What are its length and breadth? What is its general

aspect? Mention some of the most remarkable features in the natural appearance of the country. What are the varieties of its climate? What ingenuity do the Chinese display in agriculture? What is the principal article of cultivation for food? How do the Chinese cultivate even the beds of rivers and lakes? Mention some of the fruit-trees of China. What is the most remarkable of its native productions? Are there many wild animals in China? Mention some of its most important minerals. In what part of the country does coal abound? How is it used? What are the most noted manufactures of the Chinese? In what works do they particularly excel? What are their chief exports? To what city was trade with foreigners long confined? What ports were opened in 1842? What event in 1860 led to the permission of free commercial intercourse with other nations? What are the most remarkable national works of China? What is the form of government in China? What is the nature of the Chinese language? What is peculiar in the Chinese character and manners? What practice is said to be common? What peculiar notion of beauty subjects females to much pain and inconvenience? What is the religion of the government and learned men? What worship prevails among the common people?

## 2. TIBET

Is bounded N. by Eastern Turkestan and the Kuen-lun Mountains; W. by the Himalayas and Hindostan; S. by Hindostan, Birmah, and China; E. by China. It contains about 700,000 square miles. The population has been variously estimated at from  $3\frac{1}{2}$  to 11 millions.

CHIEF TOWNS.—Lassa, Teshoo Lomboo.

MOUNTAINS.—Himalaya, Kuen-lun, Kara-korum.

LAKES.—Tengri-Nor, Paltè, Mansarowara.

RIVERS.—Sanpoo, Indus.

### REMARKS.

Tibet is supposed to extend from  $28^{\circ}$  to  $35^{\circ}$  N. lat., and from  $78^{\circ}$  to  $100^{\circ}$  E. long., being nearly 1500 miles in length, and 500 miles in breadth; but its boundaries, particularly on the N., being uncertain, and our knowledge of the country altogether limited, it is impossible to give any trustworthy estimate either of its area or of its population.

Tibet is an elevated table-land, surrounded by lofty mountains covered with perpetual snow, from which spring many of the greatest rivers of Asia. Yet the cold is not so intense as might be supposed, and vegetation suffers less from the want of warmth than from the extreme dryness of the air. A country so mountainous may be expected to abound in minerals. They



are not wrought to any great extent, but cinnabar-ores (rich in quicksilver), rock-salt, and tincal or crude borax, are met with in considerable quantities. Gold of great purity is found, and there are mines of lead, silver, and copper. Among the animals are the musk-deer, resembling the hog in shape, with hair not unlike the quills of a porcupine; the ox, whose flowing and glossy tail is employed by the orientals for driving away flies and other insects; and the goat, whose fine hair is imported into Cashmere for the manufacture of shawls.

The religion of Tibet is a form of Boodhism. The Grand Lama, or high priest, who was formerly also the temporal sovereign, is an object of adoration, being regarded as an incarnation of Boodh. He is supposed never really to die, and when his apparent dissolution takes place, his soul is fancied to pass into another body, sometimes that of a child. The natives are mild and gentle in their disposition. The country is for the most part nominally subject to the Emperor of China.

#### EXERCISES.

What are the boundaries of Tibet? Name its principal towns. What are its mountains, lakes, and rivers? Between what degrees of latitude and longitude is it situated? What are its length and breadth? What is the distinguishing character of the country? What is the nature of its climate? What minerals are found in Tibet in considerable quantities? What are the chief animals? What idea do the people entertain of their Grand Lama? By what disposition are they characterized? To what emperor is the country for the most part nominally subject?

### 3. MONGOLIA.

THIS region of Central Asia is bounded N. by Asiatic Russia; W. by Asiatic Russia and Eastern Turkestan; S. by Tibet and China; E. by Manchooria. Area, about 1,304,000 square miles. Population estimated at 6,000,000.

#### Divisions.

#### Chief Towns.

Dzungaria or Thian-shan-peloo...	Ili or Goulja, Tarbagati.
The Khalkas Country.....	Oorga, Maimatchin.

MOUNTAINS.—In-shan, Khin-ghan.

LAKES.—Zaisang, Kizilbash, Ike-Aral-Nor, Kosgol.

RIVERS.—Ili, Djabekan, Selenga.

#### 4. MANCHOORIA

Is bounded N. by the river Amoor; W. by Mongolia; S. by China, Gulf of Pe-tche-li, and the Yellow Sea; E. by the rivers Yaloo and Usuri, which separate it from Corea and the Russian Maritime Territory. It contains an area estimated at 492,000 square miles. Population estimated at 6,000,000.

##### Divisions.

##### Chief Towns.

Tse-tse-har or Hihlung-kiang. Tse-tse-har, Saghalien Oola.

Kirin Oola..... Kirin Oola.

Leao-tong..... Moukden or Chin-yang, Newchwang.

GULF.—Leao-tong.

MOUNTAINS.—Chang-pe-shang or Long White Mountains.

RIVERS.—Amoor, Songari, Yaloo, Usuri, Leao-tong.

#### 5. COREA.

THIS peninsular tract of country is bounded N. by Manchooria; W. and S. by the Yellow Sea; E. by the Strait of Corea. Its area is estimated at 87,760 square miles. Population, about 9,000,000.

CHIEF TOWNS.—King-ki-tao, Ping-yang.

CHIEF RIVER.—Toumen-Kiang.

##### REMARKS.

MONGOLIA extends from 38° to 53° N. lat., and from 84° to 124° E. long. Its length from E. to W. is about 1700 miles; its breadth from N. to S. about 1000 miles. It consists of vast elevated plains or table-lands, intersected by the great desert of Gobi or Shamo, a sandy and woodless plain. The climate is cold and ungenial. The Mongols are divided into three great tribes, the Kalmucks, Eluths, and Khalkas. They are a wandering race, subsisting almost entirely by their flocks and herds. In Eastern Mongolia, however, the people have long ceased to be nomads. They live in fixed dwellings, and their chiefs have fine spacious mansions built of stone and brick. Each tribe pays an annual tribute to the Emperor of China.

MANCHOORIA forms the N. E. angle of the Chinese Empire, and is situate between 39° and 53° N. lat., and 116° and 134° E. long. Little is known regarding it, except that it is hilly, well watered, and generally fertile. The climate is very dry, ex-

tremely hot in summer and cold in winter. The Manchooks are principally an agricultural people, and live in towns and villages.

COREA is a peninsular country lying between 33° and 43° N. lat., and 124° and 130° E. long. The coast-line is elevated, and a range of mountains traverses the whole length of the peninsula. The climate is severe, but the soil is fertile and well cultivated. The Koreans are an exclusive people, and possess a literature of their own. Commerce is carried on with China and Japan. The government is despotic. Every four years an embassy is sent to Peking with tribute in silver ingots, horses, skins, cotton, etc. The religions of Boodh and Confucius prevail in Mongolia, Manchooria, and Corea.

#### EXERCISES.

What are the boundaries of Mongolia? State its extent and population. What are its divisions and chief towns? Name its mountains, lakes, and rivers. Between what degrees of latitude and longitude is it situated? What is its length and breadth? What is the character of the country? Into what tribes are the Mongols divided? How do they subsist? What is said about the inhabitants of Eastern Mongolia?

Name the boundaries of Manchooria. What are its extent and population? What are its divisions and chief towns? Name its mountains and rivers. What portion of the Chinese Empire does it form? What are the degrees of latitude and longitude between which it is situated? What is said regarding the climate and natural features of the country? What is the principal occupation of the people?

What are the boundaries of Corea? What are its area and population? What are its chief towns? Name the principal rivers. Between what degrees of latitude and longitude is it situated? What is the character of its coast-line? What is said about the climate and soil? What peculiarity are the Koreans noted for? For what purpose do they send an embassy to Peking? What are the religions which prevail in Mongolia, Manchooria, and Corea?

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### EASTERN TURKESTAN

Is bounded N. by the Dzungarian district of Mongolia; W. by Turkestan; S. by Hindostan and Tibet; E. by Mongolia. Estimated area, 50,000 square miles. Population estimated at 2,500,000.

Divisions.	Chief Towns.
Northern Provinces.....	Karashar, Kutchah, Turfan.
Khoten.....	Khoten or Ilchi.
Yarkand.....	Yarkand.
Kashgar.....	Kashgar.

**MOUNTAINS.**—Kuen-lun.

**LAKES.**—Lob Nor, Bastan or Bosteng.

**RIVERS.**—Tarim, Yarkand, Kashgar.

#### REMARKS.

Eastern Turkestan lies between 35° and 44° N. lat., and between 72° and 95° E. long. Its length from E. to W. is about 1500 miles, and its breadth from N. to S. about 600 miles.

The country north-east of Khoten is arid and waste, consisting of a portion of the great Desert of Gobi, the shifting sands of which move along in vast billows, overpowering whatever comes in the way. It is said that 300 cities were buried here within the space of 24 hours. To the west of the desert the soil is rich and the climate delightful. The grain and fruits are superior to those of Hindostan, and cotton of valuable quality and raw silk are produced in large quantities. The whole country, especially the Kuen-lun range of mountains, is wealthy in gold, silver, iron, coal, and other minerals.

The inhabitants are of a hybrid stock,—half Kirghiz half Persian, with an admixture of Calmucks. They were formerly under the dominion of China, but in 1863 they abjured that supremacy, and massacred every Chinese in Eastern Turkestan who would not adopt the Mohammedan religion. The Khan of Khoten was the first to revolt, and his example was speedily followed throughout the country.

#### EXERCISES.

What are the boundaries of Eastern Turkestan? What is its extent in square miles? What is the number of its population? Name the divisions and the chief towns. What is the principal range of mountains? What lakes does it contain? Name the rivers. Between what degrees of latitude and longitude is it situated? What are its length and breadth? What is the character of the country north-east of Khoten? How many cities are said to have been buried by the shifting sands of the Desert of Gobi? Is the soil west of Khoten fertile? What is said regarding minerals? Of what stock are the inhabitants? When did they revolt against the Chinese supremacy?

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### TURKESTAN

Is bounded N. by Asiatic Russia; W. by the Caspian Sea; S. by Persia, Afghanistan, and Hindostan; E. by Eastern Turkestan. Its area is estimated at about 641,000 square miles; and its population at about 7,800,000.

Divisions.	Chief Towns.
Kokan.....	Kokan.
Bokhara.....	BOKHARA, Samarcand, Balkh.
Khiva .....	Khiva.
Koondooz.....	Koondooz, Khooloom, Budukshan.

**MOUNTAINS.**—Hindoo-Koosh, Beloor-tagh.

**RIVERS.**—Oxus or Amoo, Jaxartes or Sir-Daria.

**LAKE OR INLAND SEA.**—The Caspian Sea.

#### REMARKS.

Turkestan, part of the ancient *Scythia*, extends from 35° to 44° N. lat., and from 51° to 78° E. long. Its length from E. to W. is about 1300 miles; its breadth from N. to S. about 600 miles.

Of this large country, at least one-half is occupied by immense steppes, or uninhabited plains. An extensive desert stretches between Bokhara and Persia, traversed only by bands of wandering Turcomans. Here were the famous kingdom and city of Meru on the Murghab, but they have long been laid waste. The eastern shores of the Caspian show a gloomy chain of arid downs and rocks. During winter the cold is extreme. Bokhara, on the Oxus, and Kokan on the Jaxartes, are fertile regions, abounding both in corn and pasture. The former territory, possessed by the Usbeck Tartars, was, in the fourteenth century, the seat of the empire of Timur, one of the greatest conquerors of Asia. Among these Tartar tribes, horse-flesh is esteemed a great delicacy, and their favourite drink is *koumiss*, or fermented mare's milk. Khiva is rather a fertile country, situated to the east of the Caspian, and watered by the Oxus. In the twelfth century it was the seat of a powerful kingdom, but it is now reduced to a province, whose extent is vaguely estimated, by saying that a man on horseback could ride over it in three days. The deserts which encompass it seem to be increasing.

#### EXERCISES.

What are the boundaries of Turkestan? What is its extent in square miles? What is its population? What are its divisions? Name the principal towns of these divisions. What mountains does Turkestan contain? Trace its rivers. Name its inland sea.

Between what degrees of latitude and longitude is Turkestan situated? What are its length and breadth? By what is at least one-half of the country occupied? What is the nature of the district between Bokhara and Persia? By what people is it traversed? Of what kingdom and city was it once the seat? What appearance do the eastern shores of the Caspian present? What is the nature of the climate? What provinces abound in corn and pas-

turage? Of what great empire was Bokhara the seat? What is esteemed a delicacy among the Tartar tribes? What is their favourite drink? At what time was Khiva the seat of a powerful empire? How is its extent now vaguely estimated? What is remarkable about the encompassing deserts?

## ASIATIC RUSSIA

Is bounded N. by the Arctic Ocean; W. by Russia in Europe; S. by Persia, Turkestan, Mongolia, and Manchooria; E. by the Pacific Ocean. It contains about 5,700,000 square miles. Population, 783,616.

Principal Divisions.	Chief Towns.
Caucasia.....	Tiflis, Erivan, Baku, Derbend.
Western Siberia.....	Tobolsk, Tomsk, Omsk, Kolyvan, Turkestan, Tashkend.
Eastern Siberia.....	Irkutsk, Yeniseisk, Kiachta, Yakutsk, Nertchinsk, Okhotsk, Nicolaivsk.

**ISLANDS.**—Aleutian Islands, Saghalien or Tarakai Island, Kurile Isles, New Siberia.

**SEAS AND GULFS.**—Sea of Kara, Gulf of Obi, Gulf of Anadir, Sea of Okhotsk, Gulf of Tartary, Behring's Sea.

**CAPIES.**—Severo or North-East Cape, East Cape, Lopatka.

**PENINSULA.**—Kamtschatka.

**MOUNTAINS.**—Caucasus, Ural, Altai, Stanovoi.

**RIVERS.**—Ural, Jaxartes or Sir-Daria, Ob or Obi, Irtish, Yenisei, Lena, Amoor.

**LAKES.**—Sea of Aral, Balcash, Baikal, Tchany, Erivan.

### REMARKS.

Asiatic Russia extends from 38° to 78° N. lat., and from 37° E. to 190° E. or 170° W. long. Its length, from the Ural Mountains to the southern extremity of Kamtschatka, is about 3600 miles; its breadth from north to south is about 2000 miles.

In a country of such immense extent there is necessarily a considerable variety of aspect. The northern and eastern parts present vast marshy plains, covered with almost perpetual snow, and intersected by large rivers, which pursue their dreary course under surfaces of ice towards the Arctic Ocean. Even in the central parts vegetation is, in a great measure, checked by the severity of the cold; but in the south there are extensive forests and plains. The valley of the Amour is very

fertile. Steppes or great plains, without a tree or a shrub, but covered in many places with luxuriant herbage, occupy a large portion of the southern provinces of Asiatic Russia.

The climate varies with the latitude, but is in general very severe. The soil is for the most part incapable of culture; but in some of the southern and western regions it is fertile, and yields good crops. In the northern wastes the reindeer supplies the place of the cow and the horse; and wild horses and asses roam over the deserts in the south. The musk-animal and the wild-boar haunt the environs of Lake Baikal; the formidable urus or bison, and the ibex, are seen among the mountains of Caucasus; the beaver frequents the banks of the Yenisei; the argali or wild-sheep is still an object of the chase; but the most valuable animals are the sable and other fur-bearing animals of the northern plains. The rivers of Siberia abound with fish from the neighbouring seas, especially salmon and sturgeon. The minerals are very valuable; the Ural and Altai Mountains contain mines of gold, silver, platina, copper, and iron, which are worked by the government.

This vast tract of country is inhabited by various tribes. Those who occupy the shores of the Northern Ocean are called Samoieds, a people resembling the Laplanders in their appearance and manner of living. The occupants of the south are of Tartar origin.

#### EXERCISES.

What are the boundaries of Asiatic Russia? What is its extent in square miles? Into what governments is it divided? What are their principal towns? Name the islands. What are the seas and gulfs? Name the capes. What are the principal chains of mountains? What are the principal rivers? Name the lakes. Between what degrees of latitude and longitude is the country situated? What are its length and breadth? What is the appearance of the northern and eastern parts? What is the state of vegetation in the central parts? What is the aspect of the southern districts? What is the character of the valley of the Amour? By what is a large portion of the southern provinces of Asiatic Russia occupied? What is the nature of the climate? In what parts is the soil fertile and the crops good? Mention some of the animals. Which of these are most valuable? With what kind of fish do the rivers of Siberia abound? Does Siberia possess much mineral wealth? What people occupy the various districts of Asiatic Russia?

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#### JAPAN

Is a rich and populous empire in the east of Asia, consisting of four large islands and a multitude of smaller ones,

separated from the peninsula of Corea and the Maritime Province of Asiatic Russia by the Straits of Corea and the Sea of Japan. It is supposed to contain about 150,000 square miles. Its population is estimated at about 35 millions.

Principal Islands.	Chief Towns.
Nippon.....	JEDDO, Miaco, Osaka, Kanagawa, Simoda, Nee-e-gata.
Kiusiu .....	Nangasaki, Sanga, Kokooru
Sikokf.....	Tosa.
Jesso or Yesso .....	Matsmai, Hakodadi.

## REMARKS.

The Japan Islands lie between  $31^{\circ}$  and  $45^{\circ}$  N. lat., and between  $129^{\circ}$  and  $150^{\circ}$  E. long. They extend in length about 1500 miles; and in breadth from 50 to 200 miles.

Japan, by the strange policy of its government, was long so completely insulated from the rest of the world, and is marked by such striking and peculiar features, as to attract a large share of the curiosity of Europe. Its islands are intersected by chains of mountains, several of which are volcanic, and some so lofty as to be covered with perpetual snow. Many of the valleys are fertile; and although the soil is generally poor, the extraordinary ingenuity and industry of the inhabitants have rendered the most barren spots productive. Rice, the principal article of food, is the favourite crop; wheat, barley, and other grains are cultivated in smaller quantities; and there are plantations of tea, cotton, sugar, and tobacco. The country abounds in mineral wealth,—gold, silver, lead, tin, and copper being found in abundance. Iron is rare; and hence the Japanese nails, bolts, etc., are frequently made of copper. There is plenty of coal, and porcelain clay is abundant.

The Japanese are intelligent and enterprising, and are believed to be better educated than any other people of Asia. Art, and even science, have made considerable progress among them. History, poetry, music, painting, geography, and astronomy, are favourite branches of education. In the manufacture of sword-blades, porcelain, and lackered ware, they are unrivalled; their silk and cotton cloths are nearly equal to those of China; and they excel particularly in the art of varnishing. For their superiority in this respect they are chiefly indebted to the juice of a tree called *arusi*. They have a kind of printing executed by fixed wooden blocks.



Their government is a despotic oligarchy, with two sovereigns,—a spiritual emperor, called the Micado, whose capital is Miaco, and a temporal emperor, called the Tycoon, whose capital is Jeddo. The Tycoon, although he pays formal homage to the Micado, is, along with the Daimios or feudal lords, the real governor of the empire.

There are two systems of religion in Japan. The older, called Sinto, resembling the mythology of ancient Greece and Rome, professes belief in one Supreme Being, with a number of inferior deities: the other, Budsdo, imported from Malabar about the sixth century, and now held by the great majority of the people, is nearly the same with that of Boodh or Buddah, metempsychosis, or the transmigration of souls, being its leading tenet. The Portuguese, the first Europeans who visited this country, converted many of the natives to the Christian faith; but in no long time their conduct excited so strong a prejudice against their religion, that a massacre took place in 1590, in which 20,000 Christians are said to have perished; and, in 1638, they were nearly exterminated. Until lately, all foreign nations, except the Chinese and Dutch, were excluded from the Japanese ports; and the jealous policy of the government in thus restricting intercourse with foreigners has hitherto prevented the country from being sufficiently known to Europeans. But the barriers by which the Japanese sought to seclude themselves from the rest of mankind have now been thrown down. In 1854, the United States of America obtained liberty to trade at Nangasaki, Simoda, Matsmai, and other ports; and, in 1858, a treaty was concluded between Great Britain and Japan, by which certain Japanese ports have been opened to British trade.

#### EXERCISES.

What islands constitute the empire of Japan? What is its extent in square miles? What is the amount of the population? Where are Nangasaki, Kanagawa, Jeddo, Tosa, Miaco, Matsmai?

Between what degrees of latitude and longitude are the Japan islands situated? What are their length and breadth? What has been the effect of the Japanese policy? Describe the appearance of the country. What is the state of cultivation? What are the principal crops? What minerals abound? In what manufactures are the Japanese unrivalled? To what are they indebted for their superiority in the art of varnishing? What kind of printing prevails among them? What are their favourite branches of education?

Describe the Japanese government. What are their two systems of religion? What Europeans first visited the country and intro-

duced Christianity? What consequences did the conduct of these settlers produce? Which was long the only European nation allowed to trade with Japan? What nation obtained liberty to trade at certain Japanese ports in 1854? What privileges did Great Britain acquire by her commercial treaty with Japan in 1858?

## OCEANIA

Is the term devised by modern geographers to distinguish the world of islands in the Pacific Ocean, extending from Sumatra and Australia east to the Sandwich Islands and the Marquesas, and from the New Zealand group north to the Tropic of Cancer. Various subdivisions of Oceania have been proposed: the one preferred here is the threefold division of Malaysia, Australasia, and Polynesia.

### I. MALAYSIA.

THE islands embraced under this head are those generally reckoned as belonging to the Eastern or Asiatic Archipelago. They lie S. and S. E. of the Chinese Sea, and extend from Sumatra east to Ceram, and from Timor north to Luzon, including these islands. Their area is estimated at about 1,000,000 square miles, and their population at 27,000,000.

Principal Islands.	Chief Towns.
Sumatra.....	Bencoolen, Acheen, Palembang.
Java.....	Batavia, Samarang, Sourabaya, Souracarta.
Borneo.....	Borneo or Bruni, Sarawak, Pontiana.
Celebes.....	Macassar or Mankasser.
The Moluccas or Spice Islands....	Amboyna, Ternate.
The Philippines, of which the principal are Luzon and Min- danao.....	} Manilla.

STRAITS.—Malacca, Singapore, Sunda, Banca, Macassar, Molucca Passage, Gilolo Passage.

### REMARKS.

The islands of Malaysia lie between 11° S. and 21° N. lat., and between 95° and 131° E. long., extending from west to east nearly 2500 miles.

The interior of the greater islands is traversed by picturesque

ranges of lofty mountains, often of a volcanic character, covered almost to their summits by noble forests, luxuriant shrubs, and aromatic plants. The soil is fertile, yielding rice, sago, and the finest spices. The clove is indigenous in the Moluccas, the nutmeg in the Banda Islands; and they have never been produced elsewhere in equal perfection. The diamond is found in Borneo, which also produces gold in great abundance; and Banca, near Sumatra, has inexhaustible mines of tin.

The great bulk of the inhabitants are Malays, an ingenious and active, but fierce and turbulent race. On the coasts they are much addicted to piracy, which they practise with great skill. The interior is for the most part peopled by the Papuas or Oceanic Negroes, who are almost complete savages.

The Dutch possess most of these islands, Batavia, in Java, being the capital of their settlements in the East. These possessions were wrested from them by Britain during the war in the beginning of this century, but were restored at the peace of 1814. The Philippine Islands belong to Spain. The small island of Labuan, on the west coast of Borneo, has been a British possession since 1846.

Notices, as well of the larger as of the smaller islands,—Aroo, Bali, Banca, Banda, Billiton, Booro, Ceram, Flores, Gilolo, Labuan, Lomboc, Madura, Sooloo, Sumbawa, Ternate, Tidor, Timor, and Timor-laut,—will be found in the DESCRIPTIVE TABLE OF ASIA.

#### EXERCISES.

To what islands is the term Oceania applied? Where are the Malaysian Islands situated? By what other name are they sometimes called? What is their extent in square miles? What is the amount of their population? Of what groups do they consist? What are the principal towns? What are the straits? Between what degrees of latitude and longitude are the islands embraced under Malaysia situated? What is their extent from west to east? What aspect do they present? What is the nature of their soil and its productions? What spices are indigenous in the Molucca and Banda Islands? Name the islands which produce gold and tin. Of what race are the great bulk of the inhabitants? What is their character? To what are the inhabitants of the coast addicted? Who are the principal inhabitants of the interior? To what European power do most of these islands belong? What town is the capital of all the Dutch settlements in India? To whom do the Philippine Islands belong? When did Labuan become a British possession?

## II. AUSTRALASIA

**COMPREHENDS** Australia (formerly called New Holland), Tasmania (formerly called Van Diemen's Land), New Zealand, Papua or New Guinea, New Britain, New Ireland, New Hanover, Admiralty Isles, Solomon Islands, Queen Charlotte Islands, New Hebrides, New Caledonia.

### 1. AUSTRALIA

**LIES** between  $10^{\circ} 40'$  and  $39^{\circ} 12'$  S. lat., and between  $113^{\circ}$  and  $153^{\circ} 39'$  E. long. It is separated, on the north, from Papua or New Guinea by Torres Strait; and, on the south, from Tasmania by Bass Strait. Its length from E. to W. is about 2500 miles; its breadth from N. to S. about 1970 miles. Its area is estimated at nearly 3,000,000 square miles. Population (exclusive of aborigines), 1,390,107.

#### Divisions.

#### Chief Towns.

New South Wales.....	Sydney, Paramatta, Windsor, Liverpool, Bathurst.
Queensland (formerly called Moreton Bay).....	} Brisbane.
Victoria (formerly called Port Phillip).....	
	} Melbourne, Geelong.
South Australia.....	Adelaide.
Western Australia.....	Perth, Freemantle.

**GULFS AND BAYS.**—*On the East*—Shelburne Bay, Princess Charlotte Bay, Halifax Bay, Broad Sound, Hervey Bay, Moreton Bay, Port Macquarie, Port Stephens, Port Jackson. *On the South*—Western Port, Port Phillip, Portland Bay, Encounter Bay, St Vincent Gulf, Spencer Gulf, Great Australian Bight, King George's Sound. *On the West*—Flinders Bay, Géographe Bay, Freycinet's Harbour, Shark Bay, Exmouth Gulf, King's Sound, Collier Bay, Admiralty Gulf, Cambridge Gulf, Van Diemen Gulf, Port Essington. *On the North*—Castlereagh Bay, Arnhem Bay, Melville Bay, Gulf of Carpentaria.

**CAVES.**—Cape York, Cape Melville, Cape Flattery, Sandy Cape, Cape Howe, Wilson's Promontory, Cape Otway, Cape Spencer, Cape Chatham, Cape Leeuwin, North-West Cape, Cape Leveque, Cape Londonderry, Point Dale.

**MOUNTAINS.**—Blue Mountains, Liverpool Range, Australian Alps or Warragong Mountains, Grampians, Pyrenees, Flinders Range, Stuart Range, Gawler Range, Victoria Mountains, Darling Range.

**RIVERS.**—Hawkesbury, Hunter, Hastings, Brisbane, Murray (with its affluents, Macquarie, Darling, Lachlan, and Murrumbidgee), Wimmera, Yarra-Yarra, Swan, Victoria, Albert, Flinders, Gilbert, Mitchell, Gregory, Leichhardt.

**STRAITS.**—Torres, Bass, Clarence, Endeavour.

**LAKES.**—Victoria or Alexandrina, Torrens, Gairdner, Eyre, Hope.

## 2. TASMANIA

(FORMERLY CALLED VAN DIEMEN'S LAND),

LYING off the S. E. extremity of Australia (from which it is separated by Bass Strait), between  $40^{\circ} 44'$  and  $43^{\circ} 40'$  S. lat., and  $144^{\circ} 38'$  and  $148^{\circ} 24'$  E. long. Its greatest length from N. to S. is 200 miles; its breadth from W. to E. is 180 miles. Its area is estimated at 27,000 square miles; its population is 98,455.

**CHIEF TOWNS.**—Hobart Town, Launceston.

**PENINSULAS.**—Tasman, Freycinet.

**BAYS.**—Great Swan Port, Storm Bay, Norfolk Bay, Port Dalrymple, Port Davey, Macquarie Harbour.

**CAVES.**—Cape Pillar, South Cape, South-West Cape, Cape Sorell, West Point, Cape Grim.

**MOUNTAINS.**—Benlomond (5010 feet high), Mount Wellington, Western Mountains, Campbell's Range, Mount Humboldt (5520 feet high).

**RIVERS.**—Derwent, Tamar, Jordan.

## 3. NEW ZEALAND

CONSISTS of two large islands, with one small island to the S., besides several others adjacent of less note, about 1200 miles S. E. from Australia, lying between  $34^{\circ} 12'$  and  $47^{\circ} 20'$  S. lat., and  $166^{\circ}$  and  $178^{\circ} 40'$  E. long. Its length is about 1100 miles; its average breadth about 105 miles. The two principal islands, called North and South

Islands, are separated by Cook's Strait. The small island on the S. is called Stewart's Island. The area of New Zealand is estimated at 122,000 square miles. The European population is 218,637; the native population is estimated at 38,540.

Provinces.	Chief Towns.
Auckland (N. of North Island).....	Auckland.
Taranaki (W. of North Island).....	New Plymouth.
Wellington (S. E. of North Island).....	Wellington.
Hawkes Bay (S. W. of North Island).....	Napier.
Nelson (N. of South Island) .....	Nelson.
Marlborough (N. E. of South Island) .....	Picton.
Canterbury (Centre of South Island).....	Christchurch.
Otago (S. of South Island) .....	Dunedin.
Southland (S. of South Island).....	Invercargill.

**MOUNTAINS.**—North and South Islands are traversed in their whole length by a chain of high mountains covered by perpetual snow. The highest peak, Mount Cook in South Island, is 12,460 feet above the level of the sea.

**RIVERS.**—*In North Island*—The Waikato, Wairoa, Wanganui. *In South Island*—The Waimea, Clutha, Hurunui, Grey, Tuapeka.

**HARBOURS.**—*In North Island*—Sandy Bay, Bay of Islands, Houraki Bay, Waitemata, Manukau, Bay of Plenty, Hawkes Bay, Port Nicholson. *In South Island*—Cloudy Bay, Port Cooper, Port Otago, Chalky Bay, Dusky Bay, Blind or Tasman Bay, Admiralty Bay, Port Gore, Queen Charlotte Sound.

**PENINSULAS.**—Tera-kako, in North Island; Banks, in South Island.

**CAVES.**—*In North Island*—North Cape, Cape Brett, Cape Colville, East Cape, Cape Mata-mawr, Cape Palliser, Cape Egmont, Albatross Point, Cape Maria Van Diemen. *In South Island*—Cape Campbell, Cape Saunders, Cascade Point, Cape Foul Wind, Cape Farewell, Cape Jackson.

#### REMARKS.

The British possessions in Australasia are, Australia (containing the colonies of New South Wales, Queensland, Victoria, South Australia, and Western Australia), Tasmania, New Zealand, Norfolk Island, the Auckland Isles, and the Chatham Isles.

Australia, formerly called New Holland, is the largest island on the globe, being four-fifths of the extent of Europe. The first British colony, founded in 1788, at Sydney, on the east coast, was intended principally for a penal settlement; but having been found to possess a fine climate and a fertile soil, the country was thrown open to British enterprise, and has since made a great and rapid increase in wealth and population.

Australia has comparatively few gulfs and havens. On the N. is the large Gulf of Carpentaria; and opposite, on the S., is the great Australian Bight. Like other great masses of land, Australia has an island of considerable size near its shores—that of Tasmania, which lies at its S. extremity, and has several fine bays and harbours. Of the other islands, the chief are, Melville and Bathurst Islands on the N., and Groote Island, in the Gulf of Carpentaria; on the E., Great Sandy Island; and in Bass Strait, Flinders and King's Islands; Kangaroo Island, near St Vincent Gulf, and Dirk Hartog's, on the W. coast. Nowhere else is there so great an extent of coast-line with so few navigable rivers. The only streams navigable for ships are the Murray, in South Australia; the Hunter, in New South Wales; the Brisbane, in Queensland; the Albert, falling into the Gulf of Carpentaria; the Adelaide, into Van Diemen Gulf; the Victoria, into Cambridge Gulf; and the Swan River, in Western Australia. A submarine wall of coral called the Great Barrier Reef, on the N. E., skirts the shore for about 1200 miles, at a distance of about 40 miles from the land. Its breadth towards the S. is 40 or 50 miles; it becomes narrower towards the N.: on the outer side there is an unfathomed depth; and on the inner, soundings of from 10 to 20 fathoms.

A range of mountains stretches along the east coast, at no great distance inland, from Bass Strait to Cape Melville. It is known as the Blue Mountains, in the vicinity of Sydney; as the Liverpool Range, in the north; and as the Australian Alps or Warragong Mountains, in the south. It runs nearly parallel to the coast, at a distance of from 30 to 50 miles, separating the waters that flow directly towards the sea from those that take an inland course. The highest peak hitherto known is Mount Kosciusko in the Warragongs, 6500 feet above the sea. It is covered with perpetual snow. The Australian Grampians and Pyrenees, in Victoria, reach a height of about 4500 feet. In Western Australia, three parallel chains stretch along the

coast from north to south, the highest point, Talbanop, in the Darling Range, being about 5000 feet high.

Australia abounds in minerals. Iron is spread in great profusion over all the continent; vast beds of coal exist in many districts; rich copper and lead ores have been found in great abundance; and, in 1851, gold-fields were discovered in New South Wales and Victoria, surpassing the richest previously known. The other great staple of the country is wool, its rich and boundless pastures being specially adapted for the rearing of sheep.

About a third part of Australia lies in the torrid zone; the rest is in the south temperate zone. The whole continent is within the range of the N. W. monsoon, which blows from November to March, and brings plentiful rains. The seasons are the opposite of those of Britain, January being the middle of summer, and July of winter. The average temperature of spring is  $65.5^{\circ}$ , of summer  $72^{\circ}$ , of autumn  $66^{\circ}$ , and of winter  $55^{\circ}$ . The atmosphere is in general dry, but clear and healthy; though there are occasionally years of great deficiency of rain. Australia is singularly deficient in native fruits or edible vegetables, but those of Europe are abundantly raised.

In each of the Australian colonies the administration of public affairs is vested in a governor appointed by the Crown, and a council and legislative assembly chosen according to the constitution of the colony. The laws are substantially the same as those of England.

#### EXERCISES.

What islands are comprehended in Australasia? What are the British possessions in Australasia? What was the island of Australia formerly called? What is its extent in square miles? What is the number of its population? What are its length and breadth? Between what latitude and longitude is it situated? What are its divisions? Name their principal towns. Name the chief mountains, rivers, and straits. What is remarkable in the coast-line of Australia? Name the island that lies at its S. extremity. Name the principal islands around the coast. What rivers are navigable? What is remarkable on the N. E. coast of Australia? What minerals are found in the country? In what months does the middle of summer and of winter occur?

What is the extent in square miles of Tasmania or Van Diemen's Land? What is the amount of its population? Between what degrees of latitude and longitude is it situated? Name its chief towns, rivers, and bays.

Of how many islands does New Zealand chiefly consist? What are their names? Between what degrees of latitude and longitude is New Zealand situated? What is its estimated extent in square



miles? What is the amount of the native population? What is the number of the European inhabitants? Name the divisions and chief towns. What are the principal mountains, rivers, capes, etc.? How are the Australian colonies governed?

### III. POLYNESIA

CONSISTS of a vast multitude of small islands scattered over the Pacific Ocean, chiefly within 30° on the N. and 30° on the S. of the equator. They are supposed to have a population altogether of about 1,500,000.

The principal groups are :—

1. The Pelew Islands.
2. The Ladrone or Marian Islands (the principal being Guam), and the Bonin Isles.
3. The Carolines (principal island, Hogoleu), the Marshall Isles, and the Gilbert Isles.
4. The Navigators' Islands (principal, Savaii or Pola.)
5. The Friendly or Tonga Islands (principal, Tongataboo), the Feejee Islands (principal, Ambou).
6. Hervey or Cook's Islands (principal, Raratonga), the Austral Isles (principal, Oheteroa).
7. Society Islands (principal, Otaheite or Tahiti).
8. The Low Archipelago; Pitcairn Island, Easter Island.
9. The Marquesas (principal, Noukahiva).
10. Sandwich Islands (principal, Owhyhee or Hawaii).

#### REMARKS.

Many of the Polynesian islands seem to have been raised from the ocean by the labours of the coral insect, and are only a few yards above the surface of the water; others show evident traces of volcanic origin, and are hilly or mountainous. Though situated within the tropics, the climate is healthy and pleasant, being tempered by cool breezes from the ocean; while the eye is everywhere refreshed by the hues of luxuriant vegetation. Among the productions are the sugar-cane and the bread-fruit, cocoa, plantain, and orange trees. The shores abound with the finest fish, and the forests are peopled with beautiful birds.

The inhabitants belong principally to the Malay variety of mankind. The people of some of the islands are mild and gentle, others are treacherous and ferocious. The practice of tattooing

the body prevails more or less in all the groups. The government is in the hands of hereditary chiefs, and there are occasionally a sort of kings to whom the others are subject. The religion is polytheism, with a belief in a future state. At the period of the discovery of the Polynesian islands, the natives had no conception of morality as it is understood among civilized men. Wars of extermination, accompanied by horrid cruelties, frequently prevailed; and the female sex were in a very degraded state. But since the commencement of the present century, by the exertions of various devoted missionaries, the natives of several of the groups have received the blessings of Christianity and civilisation, and a very remarkable and salutary change has been wrought, especially in the Society and the Sandwich Islands.

## EXERCISES.

Between what degrees of latitude N. and S. of the equator are the Polynesian islands situated? What is their supposed aggregate population? Name the principal groups. What is the nature of their soil and climate? What are their chief productions? To what variety of mankind do the inhabitants belong? What is their character? How do the Polynesian isles seem to have been formed? What practice prevails more or less in all the groups? Have the labours of the missionaries been attended with success?

## DESCRIPTIVE TABLE.

<b>A'CHEEN</b> , a seaport of Sumatra, on the N. W. coast, the capital of a native kingdom. It consists of 8000 bamboo houses, raised on posts. Pop. 36,000.—5° 35' N. lat. 95° 35' E. long.	<b>St Vincent Gulf</b> . Pop. 20,000.—84, 56 S. 138, 80 E.
<b>A'cre</b> or <b>St Jeand'Acre</b> , the ancient <i>Accho</i> , a seaport of Syria, on a fine bay of the Mediterranean. It is celebrated in the history of the Crusades. More recently, in 1799, it resisted the attack of Napoleon I., who, after besieging it for two months, was compelled to retreat. In 1840, it yielded, after a few hours' cannonade, to the British fleet. Pop. 9000.—32, 54 N. 35, 5 E.	<b>A'den</b> , a strong seaport of Yemen, in Arabia, near the entrance of the Red Sea; it now belongs to Britain. Pop. 80,000.—12, 46 N. 45, 10 E.
<b>Ada'lia</b> or <b>Sata'liah</b> , a seaport of Asia Minor, at the head of a gulf, to which it gives name, on the Mediterranean. Pop. 8000.—36, 52 N. 30, 44 E.	<b>Ad'miralty Islands</b> , a cluster of one large and several small islands in the South Pacific Ocean, N. E. of New Guinea.
<b>Ada'na</b> , a city of Caramania, in Asiatic Turkey, on the Syhoon, in a fertile plain. Pop. 20,000.—37, 5 N. 35, 12 E.	<b>A'gra</b> , a province of British India, S. of Delhi, watered by the Ganges, the Jumna, and the Chumbul. Pop. 830,000.
<b>Ad'elaide</b> , the capital of South Australia, situated on the E. shore of	<b>A'gra</b> , the capital of the above province, called by the Mohammedans <i>Acbarabad'</i> , is situated on the right bank of the Jumna. Its mausoleum, one of the most superb in the world, is constructed of white marble inlaid with precious stones. Agra was the capital of the Mogul empire till 1647. Pop. 142,661.—27, 12 N. 77, 56 E.
	<b>A'amedabad'</b> , a city of Hindostan, in the province of Gujerat, situated on the river Sabermatty. P. 120,000.—22, 58 N. 72, 45 E.

**Almédung'gur**, a city and fort of British India, Presidency of Bengal, on the Seena. Pop. 25,000.

**Aj'mere**, a large province of Hindostan, W. of Agra, and S. of Delhi, watered by the Chumbul and the Beas. Pop. 234,891.

**Aj'mere**, the capital of the province of the same name, situated at the foot of a range of hills. It is a handsome city, with a strong fortress. Pop. 25,000.—26, 31 N. 74, 34 E.

**Ak'aba**, Gulf of, an inlet forming the N. E. extremity of the Red Sea, and the eastern boundary of the peninsula of Sinai. Length, 120 miles; average breadth, 12 miles.

**Akhal'zik**, a strongly fortified town of Caucasus, in Asiatic Russia, on the Kur. Pop. 15,000.—41, 33 N. 43, 1 E.

**Ak'su**, a town of Eastern Turkistan, with considerable trade. Pop. estimated at 100,000.

**Al'dan** or **Stanovoi Mountains**, a range of hills in the E. of Siberia; they are a continuation of the Altai, and terminate at Behring's Strait. Their average height is about 4000 feet.

**Alep'oo**, the capital of Syria, in Asiatic Turkey, built on several hills, its numerous minarets and domes commanding a delightful prospect. It is the seat of a great inland trade. In 1822, it was convulsed by an earthquake, when about 20,000 persons were killed. Pop. 100,000.—36, 11 N. 37, 10 E.

**Aleu'tian Islands**, a group in the N. Pacific, between Kamtschatka and America, belonging to Russia. Pop. 15,000.

**Algezi'ra**, the ancient *Mesopotamia*, a district of Asiatic Turkey, between the Euphrates and the Tigris.

**Allahabad'**, a province of British India, S. of Oude and Agra, watered by the Ganges, the Jumna, and some inferior streams. Pop. 3,710,263.

**Allahabad'**, the capital of the province, with a strong fortress. Situated at the junction of the Ganges and the Jumna, it attracts crowds of pilgrims from all parts of India to bathe in the sacred stream. Pop. 105,649.—25, 27 N. 81, 50 E.

**Almo'ra**, the capital of Kumaon, a district in the N. W. Provinces of Hindostan, situated on the acclivity of a mountain.—29, 35 N. 79, 37 E.

**Altai' Mountains** (the ancient *Im- aus*), a vast chain, forming the south-

ern boundary of Siberia, and extending under different names more than 2500 miles, from the sources of the Irtysh and the Obi to the shores of the Pacific Ocean. Bieluka, the highest peak, is about 12,796 feet above the sea.

**Amarapoo'ra**, a fortified city, the capital of the Birman Empire, situated on the E. bank of the Irrawady. Pop. about 175,000.

**Amas'ia**, a city of Sivas, in Asiatic Turkey, on the Jekil Irmak: here Strabo, the Greek geographer, was born, about the year 50 B.C. Pop. 25,000, chiefly Christians.—40, 33 N. 36, 25 E.

**Amboy'na**, one of the Molucca or Spice Islands, in the Indian Archipelago, to the S. W. of Ceram; it belongs to the Dutch, and is famous for cloves. Pop. 167,273.

**Amboy'na**, the capital of the above island, situated on a bay. Pop. 8966.—3, 41 S. 128, 15 E.

**Am'herst**, a seaport of the Eastern Peninsula, Tenasserim Provinces, on the Gulf of Martaban; it was founded in 1826. Pop. 5000.—16, 5 N. 97, 46 E.

**Am'ol**, a city of Persia, on the Herauz near the Caspian. Pop. in winter, when it is greatest, estimated at 35,000 or 40,000.

**Amoo'**. See *Oxus*.

**Amoor' or Sagha'lien**, a large river of E. Asia, which has its source on the borders of Siberia, divides Mongolia and Manchooria from Asiatic Russia, and, after a course of 2641 miles, falls into the Amoor Gulf.

**A'moy**, a seaport of China, situated on an island on the coast of Fokien, with an excellent harbour. It is a great emporium of the trade with the Indian Archipelago. In 1841, it was captured by a British force, and was opened to British commerce in the following year. Pop. 250,000.—24, 10 N. 118, 10 E.

**Amrit'sir**, a city of Hindostan, Punjab, 36 miles E. from Lahore. It is the holy city of the Sikhs, and is the centre of a considerable trade. Pop. 90,000.—31, 32 N. 74, 48 E.

**An'adir**, Gulf of, an inlet of the sea in E. Siberia, near Behring's Strait.

**Anato'lia**, a province of Asiatic Turkey, comprehending the western part of Asia Minor, the whole of which is often called by its name.

**An'daman Islands**, a group in the S. E. of the Bay of Bengal. They

are mountainous, and abound in wood. Pop. supposed about 3000.

Ango'ra, the ancient *Ancy'ra*, a city of Anatolia. The shawls manufactured from the wool of the Angora goat rival those of Cashmere. Pop. 15,200.—89, 56 N. 32, 50 E.

An'nam, Empire of. See Cochinchina.

Ant'ioch, a city of Syria, on the Orontes, celebrated in ancient history as the capital of the Syrian monarchs, and one of the largest cities in the East. Here the followers of our Saviour were first called Christians. Pop. 18,000.—86, 11 N. 36, 9 E.

Arabian Sea, a branch of the Indian Ocean.

Aracan', a province of the Eastern Peninsula, ceded to the British by the Birmese in 1826. It extends 250 miles along the E. coast of the Bay of Bengal, with an average breadth of 50 miles. Pop. 321,000.

Aracan', formerly the capital of the province, on a river of the same name, about 40 miles from the sea. Pop. 8000.—20, 35 N. 93, 15 E.

Ar'afat, a mountain of Arabia, near the city of Mecca.

A'ral, an inland sea or salt-water lake in Asiatic Russia, east of the Caspian. Its greatest length is about 300 miles; its breadth varies from 100 to 240. It receives two large rivers, the Oxus or Amoo, and the Jaxartes or Sir-Daria; it is 118 feet above the level of the Caspian.

Ar'arat (Agri Dagh), a celebrated mountain of Armenia, S. W. of Erivan, and a few miles south of the Araxes. It rises majestically from the midst of a great plain, and terminates in two conical peaks, one of which is covered with perpetual ice. It is held in great veneration, from the belief that it is the Mount Ararat of Scripture, on which the ark rested. It is 17,112 feet above the level of the sea.

A'ras or Arax'ea, a large river which rises in Armenia, and flowing eastward joins the Kur. It forms the boundary between Russia and Persia.

Ar'cot, a city of Hindostan, Presidency of Madras, formerly the capital of the Carnatic, on the south bank of the Palaur. Pop. 40,000.—12, 54 N. 79, 21 E.

Arme'nia, a large province S. of Caucasus and Georgia, subject to the Turks, Persians, and Russians. It

is in general mountainous, and is watered by the Tigris, the Euphrates, and other streams. Pop. 1,700,000.

Arroo', a group of islands in the Indian Archipelago, 80 miles S. W. of Papua; the largest is 70 miles long and 20 miles broad. They yield pearl, tortoise-shell, and birds of paradise.

A'sia Mi'nor, the western portion of Asia, bounded on the north by the Black Sea, on the west by the Archipelago, and on the south by the Mediterranean; its eastern frontier extends to Armenia and the Euphrates. It is one of the most celebrated countries in ancient history, and contained many famous cities, which are now mostly in ruins.

Asphalti'tes, Lake of, or the Dead Sea (*Arab.* Bahr el Lout "Sea of Lot"), a lake of Palestine, in the vicinity of which stood the four Cities of the Plain which were destroyed by fire from heaven in the days of Lot. Its average length from north to south is about 46 miles; its breadth from 10 to 12 miles. It receives the river Jordan on its N. side. Its waters are so salt and acrid that only the lowest forms of animal life exist in them. Its surface is 312 feet below that of the Mediterranean.

As'sam, a British province of Hindostan, Presidency of Bengal, in the N. E. It is 400 miles long, with an average breadth of 50 miles. It is very fertile, and is watered by the Brahmapootra and other rivers. Much attention has of late years been given to the cultivation of the tea-plant. Pop. 1,201,151.

Astrabad', a city of Persia, the capital of the province of the same name, near the Caspian. Pop. 4000.—36, 55 N. 54, 30 E.

At'tock, a town and fortress of Hindostan, Punjab, on the Indus, which is here crossed by a bridge of boats. Pop. 2000.

Auck'land, a province of New Zealand, at the head of Waitemata Bay, in North Island. Pop. 50,100.—36, 51 S. 174, 45 E.

Auck'land, a commercial town of New Zealand, capital of the province of the same name. Pop. 11,153.

Auck'land Islands, a group in the Pacific, to the S. of New Zealand. The largest island is 30 miles long and 15 miles broad.—50, 48 S. 166, 42 E.

Aurangabad', an old Mohammedan

province of Hindostan, Bombay Presidency, now divided among the Nizam's territory and the British districts of Poonah, Ahmednuggur, and Concan.

Aurangabad', the capital of the above province; it was the favourite residence of the Emperor Aurungzebe, from whom it derived its name: he died here in 1707. Pop. 60,000.—19, 55 N. 75, 29 E.

Aus'tral Isles, a fertile group in the S. Pacific, to the E. of Cook's Islands. The principal islands are, Oheteroa, Toobouai, and Rimatara.

Australasia and Australia. See Remarks, p. 237.

A'va, a decayed city of the Birman Empire, situated on the left bank of the Irrawady. It was almost wholly destroyed by an earthquake in 1839.—21, 50 N. 95, 50 E.

Azerbi'jan, a province of Persia, bounded on the N. by the Araxes; it is the native country of Zoroaster.

BAAL'BEC, anciently *Heliop'olis*, a city of Syria, now a decayed village, is situated in a fertile valley near the foot of Anti-Libanus. Here are the magnificent ruins of a "Temple of the Sun," supposed to have been built by Antoninus Pius.

Ba'ba, Cape, the ancient *Lectum*, the most westerly point of Asia Minor, near the entrance of the Dardanelles.—39, 29 N. 26, 4 E.

Babelman'deb, Straits of, a channel at the entrance of the Red Sea from the Indian Ocean; it is more than 20 miles broad.

Bag'dad, the capital of a pashalic of the same name in Asiatic Turkey, situated on the Tigris. It has considerable trade, being an emporium for the products of Arabia, Persia, and India. Pop. about 65,000.—33, 19 N. 44, 24 E.

Bahre'in', a cluster of islands on the S. W. side of the Persian Gulf, subject to the Imaum of Muscat. The pearl-fishery here is one of the most valuable in the world. Pop. 68,000.

Bai'kal, a lake or inland sea of E. Siberia: it is about 400 miles in length, with an average breadth of 40 miles. The Russians regard it with veneration, and call it the Holy Sea.

Bak'tegan, a large salt lake of Persia, in the province of Fars.

Ba'ku, a fortified seaport of Shirvan, in Asiatic Russia, on the Caspian. In the vicinity are inexhaustible pits

of naphtha, and from the adjacent plains an inflammable gas continually issues. This natural fire was an object of worship by the Guebres or fire-worshippers, some of whom still reside in the district. P. 31,000.—40, 22 N. 49, 40 E.

Balfrush', a town of Persia, in the province of Mazanderan, near the Caspian; it has a considerable trade. Pop. 5000.—36, 32 N. 52, 45 E.

Bal'i, an island of the Indian Archipelago, to the E. of Java; its length, from E. to W., is 70 miles, its breadth 35 miles. It has a considerable export trade. Pop. 863,720.

Bal'kash or Teng'iz, a large lake of Asiatic Russia, near the frontiers of Western Mongolia.

Balkh, a province of Bokhara, between Cabul and the Oxus, extending about 250 miles from W. to E., and 120 from N. to S. It was in the hands of the Afghans till lately, when it was seized by the Khan of Bokhara.

Balkh, the ancient *Bac'tra*, the capital of the province of the same name, situated in a plain. It is regarded by the Asiatics as the oldest city in the world. Pop. 2000.—36, 40 N. 67, 18 E.

Ban'ca, an island on the N. E. coast of Sumatra, from which it is separated by the Straits of Banca. It is celebrated for its tin-mines. P. 54,339.—2, 20 S. 106, 0 E.

Ban'da, a town of Allahabad, British India. Pop. 33,464.

Ban'da Islands, a group in the Indian Ocean, forming part of the Spice Islands, famous for their nutmegs. Pop. 111,586.

Bangalore', a strong city of Mysore, in Hindostan, Presidency of Madras, formerly the residence of Hyder Ali. Pop. 60,000.—12, 57 N. 77, 37 E.

Ban'kok, the capital of Siam, on the Menam. The houses are built upon bamboo rafts moored along the banks. Pop. 350,000, of whom about one-half are Chinese.—18, 58 N. 100, 34 E.

Banks' Peninsula, a mountainous and woody territory on the E. coast of South Island, New Zealand.

Bareil'ly, a city of Hindostan, North-West Provinces, the capital of Rohilkund, with a thriving trade, an English college, and Hindoo schools. Pop. 105,649.—28, 25 N. 79, 23 E.

Barnaul', the principal town of the

Kolyvan mining district in Siberia. Pop. 9927.

Baro'da, a city of Gujerat in Hindostan, the capital of the Guicowar, a Mahratta chief. Pop. 100,000.

Bass' Strait separates Australia from Tasmania or Van Diemen's Land. Where narrowest, it is about 105 miles across.

Basso'rah or Bas'ra, a city of Irak-Arabi, on the Shat el Arab, 70 miles from its mouth, in the Persian Gulf. It is a place of great trade. Pop. 60,000.—30, 29 N. 47, 35 E.

Bata'via, capital of the island of Java and of the Dutch possessions in the east. It is situated on the N. W. coast, and has many advantages for carrying on an extensive commerce. Pop. 135,000.—6, 9 S. 106, 50 E.

Ba'thurst, a town of Australia, New South Wales, on the W. bank of the Macquarie, 97 miles from Sydney. Pop. 4042.

Bay'azid, a fortified town of Turkish Armenia, near the base of Mount Ararat. Pop. 5000.—39, 24 N. 44, 13 E.

Behar, an old Mohammedan province of Hindostan, Presidency of Bengal, now subdivided among various districts. The present British district of Behar comprises only a portion of the S. W. half of the province. Area, 5694 square miles. Pop. 2,500,000. The city of the same name is situated in a fertile valley, 35 miles S. E. of Patna. Pop. 30,000.

Beh'ring's Sea, or Kamtschatka Sea, that part of the North Pacific Ocean which lies between the Aleutian Islands and Behring's Strait, by which latter it communicates with the Arctic Ocean.

Beh'ring's Strait, the narrow sea which separates Asia from North America, near the parallel of 66° N. It is 36 miles broad, from East Cape in Asia to Cape Prince of Wales on the coast of America. It takes its name from its discoverer, Behring, a Russian voyager.

Bejapore', formerly a province of Hindostan, forming a part of the Mogul Empire, to the S. of Aurungabad.

Bejapore', the capital of the above province, now little more than a vast space covered with ruins, mosques, and mausoleums.

Beloochistan', the ancient *Gedrosia*, a country lying on the S. of Afghanistan, inhabited by a fierce

and predatory race. Its area is estimated at 200,000 square miles. Pop. 500,000.

Beloor'-tagh, a range of lofty mountains running N. and S. between Turkestan and Eastern Turkestan, varying in height from 15,000 to 20,000 feet.

Benares (Benairz'), a celebrated city of British India, the capital of a rich district in the North-West Provinces; it is situated on the N. bank of the Ganges, and is the chief seat of Brahminical learning. Pop. 173,352.—25, 18 N. 82, 55 E.

Bencoo'len, a seaport of Sumatra, on the S. W. coast; it belongs to the Dutch, having been given to them by the British in 1824, in exchange for Malacca on the continent. Pop. 13,000.—3, 47 S. 102, 19 E.

Bengal', a province of Hindostan. Its soil is peculiarly fertile, yielding in great abundance both the necessities and the luxuries of life. Area, about 246,785 square miles. Pop. 42,505,222. The Presidency of Bengal comprehends 672,648 square miles, and 107,132,741 inhabitants.

Bengal', Bay of, a part of the Indian Ocean, washing the eastern shores of Hindostan and the western shores of the Indo-Chinese Peninsula.

Bey'rout, a fortified seaport of Syria, the ancient *Berytus*, on an extensive bay of the Mediterranean. Pop. 60,000.—33, 50 N. 35, 26 E.

Bham'o, a town of Birmah, on the Irrawady; its chief trade is with China. Pop. about 10,000.

Bhaugulpore', a town of British India, in the Presidency of Bengal. Pop. 30,000.

Bhooj, a strong city of Hindostan, Presidency of Bombay, the capital of Cutch, noted for its manufactures of gold and silver. Pop. 20,000.

Bhurtpore', a city and formerly a strong fortress of Agra, in Hindostan; it was stormed by the British in 1805, 1826, and 1833. Pop. 100,000.—27, 13 N. 77, 34 E.

Bil'liton, an island of the Eastern Archipelago, between Sumatra and Borneo, rich in iron and timber. Pop. 15,824.

Bir (Beer), a walled town of Asiatic Turkey, on the Euphrates. Pop. 8000.

Bir'mah, or the Bir'man Empire, a state of the Eastern Peninsula, between 19° 29' and 27° N. lat., and 93° and 102° E. long. It is traversed

from N. to S. by the river Irrawady. It has valuable mines of gold, silver, copper, tin, lead, antimony, and iron, besides a great variety of precious stones. Teak is abundant. Estimated area, 260,000 square miles. Pop. 3,000,000. The British provinces of Birmah comprise an area of 90,070 square miles, with a pop. of 2,196,180.

Bit'lis, an ancient city of Kurdistan, in Asiatic Turkey, S. W. of Lake Van. Pop. 8000.

Bokha'ra, Khanate or kingdom of, the *Sogdiana* of antiquity, in Turkestan, to the S. E. of the Sea of Aral, between the Oxus and Jaxartes. It is inhabited by the Usbeck Tartars. In the vicinity of the river the soil is rich and fertile, but a great portion of the country is occupied by the Desert. Pop. estimated at 10,000,000.

Bokha'ra, the capital of the above state. It contains a number of colleges, and is a great seat of Mohammedan learning; it is the centre of an extensive commerce. Pop. 70,000.—39, 48 N. 64, 26 E.

Bo'll, a town of Anatolia, in Asiatic Turkey, with manufactures of cotton and leather. Pop. 6000.

Bombay', a flourishing seaport, the western capital of British India, situated on a small island, separated from the mainland by a narrow strait, and connected with the island of Salsette by a causeway. It is strongly fortified, and has an extensive trade. Pop. 816,562, of whom 100,000 are Parsees.—18, 56 N. 72, 53 E. The Presidency of Bombay contains 131,544 square miles, and 12,889,106 inhabitants.

Boo'ro, an island of the Eastern Archipelago, to the W. of the Moluccas. It is fertile and well watered, producing rice, sago, fruits, and dyewoods. Pop. 18,000.

Boo'tan or Bho'tan, a native state in the N. E. of Hindostan, bounded on the north by the Himalaya Mountains, which separate it from Tibet. It is about 250 miles in length by 100 in breadth: it is mountainous, and has extensive forests. Pop. 1,500,000.

Bor'neo is, next to Australia, the largest island on the globe. Its greatest length is 850 miles, its breadth 680 miles. It lies directly beneath the equator, to the east of Sumatra and the Malay Peninsula, and to the north of Java. It contains

valuable mines of diamonds, gold, antimony, tin, iron, copper, lead, and coal. The interior of the country is very little known, except the district of Sarawak, of which Sir James Brooke was rajah from 1841 to 1868. Estimated area, 300,000 square miles. Pop. 3,000,000.

Bor'neo or Bru'ni, the capital of the kingdom of Borneo, situated on the N. W. coast. Its chief trade is with China, Singapore, and the Philippines. P. 22,000.—4, 56 N. 114, 50 E.

Brahmapoo'tra, a large river of India, whose sources have not yet been reached by any European; it flows through the valley of Assam and the province of Bengal, and, uniting with the Ganges, falls into the Bay of Bengal.

Bris'bane, a town on a river of the same name which flows into Moreton Bay, on the E. coast of Australia. It is the capital of the British colony of Queensland. Pop. 10,000.

Bru'sa, a city of Anatolia, at the foot of Mount Olympus; it suffered severely from an earthquake in 1855. Pop. 60,000.—40, 8 N. 29, 10 E.

Buduk'shan, a district of Hindostan, now a dependency of the Khan of Koondooz, consisting of a beautiful valley, celebrated for its mines of ruby and lapis lazuli.

Buduk'shan, the capital of the above district, on a tributary of the Oxus.

Bundelcund', a territory of Hindostan, partly belonging to the British, between 24° and 26° 26' N. lat., and 78° and 81° 39' E. long. It is noted for its diamond-mines. Area, 22,400 square miles. Pop. 3,170,000.

Burdwan', a city of British India, in the province of Bengal, 60 miles N. W. of Calcutta. Pop. 54,000.

Burhampore', a city of Candeish, in Hindostan, Presidency of Bengal, situated on the Taptee. It carries on a considerable trade.—21, 19 N. 76, 18 E.

Bushire (Busheer) or Abushehr', a port of Persia, on the Persian Gulf, an emporium of the trade with India; it was captured by the British in 1856. P. 18,000.—29, 0 N. 50, 52 E.

CABUL', an extensive province of Afghanistan, bounded on the north by the Hindoo-Coosh, which separates it from Balkh.

Cabul', a fortified town, the capital of the province, stands on a river of the same name, 6400 feet above the sea. It is surrounded by gardens



abounding in the choicest fruits. It was long considered the gate of Hindostan towards Tartary. Pop. 60,000.—34, 30 N. 69, 6 E.

Calcut'ta, the capital of British India, and the seat of the supreme government, is situated on the Hoogly, a branch of the Ganges, a hundred miles from its mouth. It extends about five miles along the river; and its spires, temples, mosques, the citadel of Fort William, its splendid edifices, and elegant villas and gardens, present an appearance of magnificence which seems to warrant its proud appellation of the "City of Palaces." Pop. 377,924.—22, 33 N. 88, 17 E.

Cal'icut, a seaport of Hindostan, on the Malabar coast; it was the first Indian port visited by Vasco de Gama, in 1498. Pop. 25,000.—11, 15 N. 75, 50 E.

Cal'imere, Point, a cape on the S. E. coast of Hindostan.—10, 17 N. 79, 5 E.

Calpee, a town of British India, in the division of Allahabad, North-West Provinces. Pop. 21,812.

Cam'bay, a seaport of Gujerat, in Hindostan, at the head of the gulf to which it gives name. Pop. 10,000.—22, 20 N. 72, 40 E.

Cambo'dia, a country of the Eastern Peninsula, to the S. E. of Siam. Among its productions is the yellow pigment called gamboge. Pop. 1,000,000.

Cambo'dia, the ancient capital of the above country, situated on the Menam-kong, about 150 miles from its mouth.—11, 58 N. 105, 7 E.

Can'ara (North), the southmost district of the Bombay Presidency. Area, 4900 square miles. P. 490,089.

Can'ara (South), the most westerly district of the Madras Presidency, extending along the Malabar coast; it has extensive forests of teak and other timber. Pop. 995,656.

Can'dahar, a province of Afghanistan, inhabited by Afghans of the Dourannee tribe. Pop. 30,000.

Can'dahar, the capital of the province, on the great road between Persia and India. Pop. estimated at from 50,000 to 100,000.—32, 37 N. 66, 20 E.

Can'deish, a province of Hindostan, Bombay Presidency, S. of the Nerbudda, and E. of Gujerat. It is watered by the Taptee; some portions of it are very fertile, but a

large extent is covered with jungle. Pop. 778,112.

Can'dy, a town in the interior of the island of Ceylon, formerly the capital of a native kingdom. It is surrounded by wooded hills. Pop. 3000.—7, 20 N. 80, 48 E.

Can'terbury, a province of New Zealand, in South Island. P. 53,843.

Canton', the capital of the province of Quang-tung in China, is situated at the confluence of the Pe-kiang with the Choo-kiang or Pearl River (called by the British the Canton River, and the river Tigris). It is distant about 70 miles from the sea, at the head of the Bocca Tigris, a noble estuary studded with islands. The river for four or five miles is crowded with boats containing whole families which have no other home. In 1857, it was captured by an Anglo-French force. Pop. about 1,000,000.—23, 7 N. 113, 15 E.

Carama'nia, an extensive province of Asia Minor, E. of Anatolia.

Carnat'ic, a province of Hindostan, Presidency of Madras, extending 550 miles along the Coromandel coast to Cape Comorin.

Car'oline Islands, a numerous coral group in the Pacific, E. of the Philippines and S. of the Ladrões. They are exposed to violent hurricanes; the natives are distinguished for their skill in navigation. Pop. 23,580.

Carpenta'ria, Gulf of, a large inlet on the N. coast of Australia.

Carrical', a town of Hindostan, Madras Presidency, on the Coromandel coast, belonging to the French. Pop. 10,000.

Cas'bin, a fortified town of Irak-Ajemi in Persia, with a considerable trade. P. 40,000.—36, 15 N. 49, 30. E.

Cash'gar. See Kashgar.

Cash'mere, a native state in the N. W. of Hindostan, formerly a province of the Punjab. It is surrounded by lofty mountains, and contains a beautiful valley, in which reigns an almost perpetual spring. It is noted for its shawls, manufactured from the wool of the goats of Tibet. Area, 25,100 square miles. Pop. 700,000.

Cash'mere or Serinagur', the capital of the above country, situated on the banks of the Jelum. P. 40,000.—34, 5 N. 74, 43 E.

Cas'plan Sea, an inland sea or lake, the largest on the globe, about 300 miles to the eastward of the Black



Sea, and 88½ feet below its level. Its length from N. to S. is 750 miles; its average breadth is 200; its area is 140,000 square miles. It has no tides, and its water is less salt than that of the ocean.

Catmandoo' or Khatmandu', the capital of Nepaul, in the north of Hindostan, in a romantic valley, about 40 miles S. of the Himalaya. Pop. 20,000.—27, 45 N. 85, 15 E.

Cau'casia, a lieutenantancy or province of the Russian Empire, lying on both sides of the Caucasus, chiefly in Asia, but comprehending a portion of European territory. It has an area of 117,427 square miles, and a population of 4,157,922.

Cau'casus, a chain of lofty mountains stretching across the isthmus between the Black Sea and the Caspian. Its length, from Anapa on the Black Sea to Baku on the Caspian, is about 700 miles; its breadth varies from 60 to 120 miles. Its loftiest summit, Elburz, is 18,498 feet above the sea.

Cav'ery, a river of S. Hindostan, which rises in the W. Ghauts, flows E. through Mysore and the Carnatic, and falls into the Bay of Bengal.

Cawnpore', a city of Hindostan, North-West Provinces, on the right bank of the Ganges, 628 miles N. W. of Calcutta. It was the scene of a massacre of the British by Nana Sahib in 1857. Pop. 113,601.

Cel'ebes, a large island of the Indian Archipelago, to the E. of Borneo, from which it is separated by the Straits of Macassar. It is so indented by deep bays as to form four long peninsulas. Its length is about 500 miles; its average breadth 150. Though rugged and mountainous, the soil is fertile, yielding in abundance rice, sugar-cane, sago, and cotton. Of its native tribes, the Bugis are the most active traders in the Indian Archipelago. Its area is estimated at 73,000 square miles. P. 2,000,000.

Ceram'. See Moluccas or Spice Islands.

Ceylon', an island of British India, separated from the continent by the Gulf of Manaar and Palk's Strait. Its greatest length from N. to S. is 270 miles; its greatest breadth 145; and its average breadth 100 miles. It is the *Taproba'na* of the ancients. The interior is traversed by finely wooded mountains, and watered by numerous rivers and lakes. The

soil is rich and luxuriant, producing coffee, sugar-cane, rice, pepper, and teak, and other valuable woods. Plantations of cinnamon, amid groves of cocoa-nut trees, border the S. W. coast for 100 miles. The island abounds in gems, and there is an extensive pearl-fishery in the Gulf of Manaar. The elephants of Ceylon have long been famed for their size and sagacity. The British government have done much for the civilisation of the natives. Area, 24,664 square miles. Pop. 2,342,098.

Chandernagore', the capital of the French settlements in Bengal, on the Hoogly, about 16 miles above Calcutta. Pop. 28,852.

Chang-cha', a city of China, the capital of the province of Hoo-nan.

Chat'ham Islands, a small group to the E. of New Zealand. Pop. 64.

Che-kiang', a province of China on the E. coast, to the N. of Fo-ki-en. Pop. 26,256,784.

Ching-too', a city of China, the capital of the province of Se-chu-en; it has an extensive trade.

Chittagong', a British province of the Eastern Peninsula, on the north-western shore of the Bay of Bengal, to the north of Aracan. P. 1,000,000.

Choo-kiang' River. See Canton.

Chu'san, one of a group of fertile islets off the coast of China, near the mouth of the Yang-tse-kiang. Pop. 200,000. Ting-hae, the capital, was taken by the British in 1840, and again in 1842.

Cir'cars, a province of Hindostan, Presidency of Madras, extending along the W. side of the Bay of Bengal. It is one of the most valuable districts of British India, being equal to the Carnatic in fertility, and superior in manufacturing industry. Pop. 4,292,187.

Cochin (Kot'shin), a small native state in Hindostan, Madras Presidency, between Malabar and Travancore. Pop. 399,060.

Co'chin, a seaport, the capital of the province, was the first place at which the Portuguese, in 1503, were permitted to erect a fort; it still enjoys a considerable trade. Pop. 30,000.—9, 50 N. 76, 18 E.

Co'chin-Chi'na, a country in the Eastern Peninsula, called also the Empire of Annam, comprehending Tonquin and Cochin-China Proper. It extends from the Gulf of Siam to the Gulf of Tonquin. Its area is esti-

mated at 140,000 square miles. Pop. 6,000,000. See Saigon.

Colom'bo, a seaport, the capital of Ceylon, on the W. coast; it is a handsome town, and strongly fortified. Pop. 55,000.—6, 56 N. 79, 51 E.

Com'orin, Cape, the extreme southern point of the peninsula of Hindostan.—8, 6 N. 77, 30 E.

Con'can, a maritime district of Hindostan, extending from Bombay to Goa, with an average breadth of 47 miles between the Western Ghats and the sea.

Cook's Islands, a group in the S. Pacific, between the Society Islands and the Friendly Islands. Estimated pop. 50,000.

Coosh Be'har, a small native state of Hindostan, Presidency of Bengal. Area, 1287 sq. miles. Pop. 300,000. The town of the same name is on the Toresha River, 45 miles N. of Rungpore.

Core'a, a peninsula, separated from China by the Yellow Sea, and from the islands of Japan by the Straits of Corea and the Sea of Japan. It is about 500 miles long and 150 broad; the interior is traversed from N. to S. by a chain of mountains. It is tributary to China. Area estimated at 87,760 sq. miles. P. about 9,000,000.

Coroman'del, the eastern coast of Hindostan, extending between 10° and 16° N. lat.

Cowloon', a township in the mainland of the province of Quang-tung, in China, opposite to Hong-Kong. Part of it was ceded to Great Britain by the Treaty of Peking in 1860.

Cul'na, a town of Hindostan, district of Burdwan, Bengal Presidency. It is a station for steamers plying between Calcutta and the North-West Provinces. Pop. 60,000.

Cutch, a peninsula of Hindostan, between the Indus and the Gulf of Cutch. Area, 6500 square miles. Pop. 409,523.

Cut'tack or Kut'tack, a maritime district of Hindostan, Bengal Presidency, on the W. side of the Bay of Bengal, in the province of Orissa. Pop. 2,127,555.

Cut'tack, the capital of the district, situated on a peninsula formed by the Mahanuddy. Pop. 40,000.—20, 25 N. 83, 52 E.

Cy'prus, an island in the Mediterranean, off the coast of Asia Minor. It is 140 miles in length by 50 in breadth. It is traversed from E. to

W. by two lofty chains of mountains. In ancient times it was celebrated for its fertility and beauty. Its fruits, particularly grapes, still preserve their pre-eminence. Although many parts of it are uninhabited heaths and wastes, it is elsewhere very productive. Pop. 200,000.

DAC'CA, a district of the province of Bengal, between the Ganges and the Megna or Lower Brahmapootra. Pop. estimated at 600,000.

Dao'ca, the capital of the district, situated on the Boorce Gunga or Old Ganges; it is noted for its manufacture of muslins. Pop. 76,000.—23, 43 N. 90, 28 E.

Daghestan', a district on the W. of the Caspian Sea, for many years a debatable land between the Persians and Russians, but now possessed by the latter. Pop. 427,931.

Damar', a town of Arabia, in the province of Yemen. Pop. 20,000.

Damas'cus, a very ancient city of Syria, in Asiatic Turkey, situated in a beautiful plain. Being on the route of the great caravans to Mecca, it is the centre of an extensive trade. It was formerly famous for its manufacture of sabres; and it has given the name of damask to figured silk and other textures. Beyrout is the port of Damascus. Pop. 140,000.—33, 27 N. 36, 25 E.

Dead Sea. See Asphaltites, p. 243.

Dec'can ("The South"), a region of Hindostan, stretching across the peninsula, and bounded by the Nerbudda on the N. and the Kistnah on the S.

Del'hi, a province of Hindostan, Punjab, to the north of Agra, situated between 28° and 31° N. lat. It is generally flat, with a soil which is either sandy or covered with dense jungles and forests. Pop. 2,332,200.

Del'hi, the chief city of the above province, long the capital of the Mogul Empire, is situated on the banks of the Jumna. It was seized by the Sepoy mutineers in May 1857, but was retaken by the British in September of the same year. Pop. 150,000.—28, 40 N. 77, 15 E.

De'ra Gha'zee Khan, a town of Hindostan, Punjab, on the west bank of the Indus. Pop. 25,000.

Dera'yeA, a town of Arabia, formerly capital of the country of the Wahabees, in Nedjed. Pop. 15,000.

Der'bend, a strongly fortified seaport of Daghestan, belonging to Rus-

sia, on the W. coast of the Caspian Sea. Pop. 12,870.

Diarbe'kir, a pashalic of Asiatic Turkey, comprising part of ancient *Armenia* and *Mesopotamia*.

Diarbe'kir, the capital of the above province, near the right bank of the Tigris; it has considerable trade. Pop. 14,000.—37, 55 N. 39, 53 E.

Dinapore', a town of British India, Presidency of Bengal, on the south bank of the Ganges. Pop. 16,130.

Dinajepore', a district of British India, Bengal Presidency. Area, 3820. Pop. 1,200,000. The town of the same name is about 261 miles N. of Calcutta. Pop. 27,000.

Diu, a fortified town of W. Hindostan, in a small island on the S. coast of Gujerat; it belongs to the Portuguese. Pop. 10,858.

Diz'ful, a city of Persia, in the province of Khuzistan, on the river of the same name. Pop. about 15,000.

Doo'shak or Jelalabad', the capital of the province of Seistan, in Afghanistan, near the Helmund. P. 10,000.

Dune'din, a town of New Zealand, on the E. coast of South Island, on Port Otago. Pop. 12,776.

EAST CAPE, the extreme eastern point of Asia, on the W. of Behring's Strait.—66, 5 N. 190, 0 E. or 170, 0 W.

East'er Island, in the South Pacific, is about 20 miles in circuit, and peopled by an intelligent race of natives. Pop. 1200.—27, 9 S. 109, 12 W.

Eastern Straits Settlements, the name given since 1851 to the British possessions of Prince of Wales Island, Province Wellesley, Malacca, and Singapore.

Ekat'erinburg, a celebrated mining town of Asiatic Russia, on the E. slope of the Urals; it has extensive foundries. Pop. 21,777.—56, 48 N. 60, 35 E.

El'burz, a range of mountains in Persia, of which the Demavend Peak is 21,500 feet high. Elburz is the name also of the highest peak of the Caucasus; see p. 248.

Elephan'ta, a small island on the W. coast of Hindostan, between Bombay and the mainland, celebrated for its singular cave-temples.

El Ka'tif, a seaport of Lachsa, in Arabia, situated on a bay in the Persian Gulf. Pop. 6000.

Elwund', a range of mountains in Persia, of which the highest summit is near Hamadan.

Er'ivan or Se'van, Lake of, in Russian Armenia, N. E. of Erivan; it is 100 miles in circumference.

Er'ivan, a town of Russian Armenia, with a strong fortress, situated on a precipitous rock, overhanging the Zengul, near its junction with the Araxes. Pop. 12,170.

Erzroum' or Er'zeroum, the capital of Turkish Armenia, near the northern source of the Euphrates; it stands on a beautiful plain, 6000 feet above the sea. It has an extensive trade. Pop. 40,000.—39, 55 N. 41, 18 E.

Euphra'tes or Frat, a celebrated river of Asia, rises in the mountains of Armenia. After a course of 1600 miles, it receives the Tigris above Bassorah. The united stream, under the name of the Shat el Arab, falls into the Persian Gulf by several mouths. Its whole course is about 1700 miles.

FARS or Farsistan', the ancient *Persis*, a province of Persia, E. of Khuzistan, and N. of the Persian Gulf. Pop. 1,700,000.

Feejee' Islands, a group in the Pacific to the N. W. of the Friendly Islands. They are of volcanic formation, with a rich soil and fine scenery. Estimated pop. 200,000.

Ferozepore', a town of Hindostan, district of Sirhind, Punjab, on the Sutlej. Pop. 16,890.

Flo'res, an island of the Indian Archipelago, to the S. of Celebes. Length from W. to E. about 200 miles; average breadth, 35 miles.

Fo'-ki-en, a maritime province in the S. E. of China. It abounds not only in grain but in fruit, particularly oranges; the tea-plant is cultivated on a great scale. P. 14,777,410.

Foo'choo, the capital of the above province, situated on the Min-kiang, which is here crossed by a stupendous bridge. It is as large as Canton, and carries on a considerable trade in teas, tobacco, and timber. Pop. 600,000.

Formo'sa, a large and fertile island in the Chinese Sea, opposite the province of Fo-ki-en. It is 250 miles in length by 80 in breadth. Pop. about 2,000,000.

Free'mantle, a seaport of Western Australia, at the mouth of the Swan River.

Friend'ly or Ton'ga Islands, a numerous group in the Pacific Ocean, to the S. W. of the Society Islands.

The principal are Tongataboo, Anamooka, Vavaoo, Eooa, and Tofoa. They are inhabited by an interesting race of natives, who have made some progress in civilisation. Pop. about 50,000.

Furruckabad', a commercial city of Hindostan, in the province of Agra, near the S. bank of the Ganges. P. 73,110.—27, 24 N. 79, 27 E.

GAN'GES, one of the largest rivers of Asia, is held in the highest veneration by the natives of India. It issues in a small stream from a mass of perpetual snow on the S. side of the Himalaya Mountains, and is called the Bhagirathi till joined by the Alakananda, below Serinagur. On passing Hurdwar, it enters the plains of Hindostan, and at Allahabad receives the Jumna. It is swelled by the accession of several large rivers in its progress to Patna, where it is from one to three miles broad, and thirty feet deep. About 200 miles from the sea it branches into a delta, the numerous branches of which form a labyrinth of channels and creeks, called the Sunderbunds. The western or Hoogly branch, which passes by Calcutta, is the only one that is navigable. The eastern branch receives the Brahmapootra before pouring its flood into the Bay of Bengal.

Ga'ya, a city of Hindostan, in the province of Behar, on a tributary of the Ganges. It is one of the holy cities of the Hindoos. Pop. 43,451.—24, 44 N. 85, 0 E.

Ga'za, an ancient city of Palestine, near the coast. Pop. 15,000.

Gee'long, a town of Australia, in the colony of Victoria, at the head of the W. arm of Port Phillip, 45 miles from Melbourne. Pop. 22,986.

George Town, in Prince of Wales' Island, in the Straits of Malacca, the chief town of the island, and the capital of the British possessions called the Eastern Straits Settlements.

Geor'gia, the ancient *Ibe'ria* and *Colchis*, a mountainous region on the S. declivity of the Caucasus. Watered by the Kur and numerous tributary streams, it combines the productions of the temperate and tropical climes. Its valleys are extremely fertile, and the vine grows wild on its hills. The beauty of the Georgian women, like that of the Circassians, is proverbial throughout the east. Georgia now belongs to Russia. Extent, 21,500 square miles. P. 873,000.

Ghauts, two extensive chains of mountains in the S. of Hindostan. The western extends nearly 1000 miles, from Cape Comorin to Surat; the eastern is almost of equal length, on the opposite coast. See Neilgherries, p. 280.

Ghazeepore', a town of British India, North-West Provinces. P. 38,573.

Ghi'lan, a province of Persia, extending 120 miles along the S. W. shore of the Caspian.

Ghor or Paropami'san Mountains, a range which separates Afghanistan from Balkh.

Ghuz'nee or Ghiz'ni, a fortified city of Afghanistan, situated 7000 feet above the sea; it was once the capital of a powerful state, but is now in decay. Pop. 7000.

Gilo'lo, the largest of the Moluccas or Spice Islands; like Celebes, it is broken into four peninsulas, separated from each other by deep bays.

Go'a, New, or Pan'jim, a seaport on the W. coast of Hindostan, Bombay Presidency, the capital of the Portuguese possessions. P. 10,000.—15, 29 N. 73, 50 E.

Go'bi, called also Shamo by the Chinese, a great sandy desert of Central Asia, comprising a considerable part of Eastern Turkestan and Mongolia. Its length from E. to W. is about 1500 miles; its breadth varies from 500 to 700 miles. It abounds in salt, and shows traces of having once been covered by the ocean.

Godav'ery, a river of Hindostan, which rises in the W. Ghauts, and, traversing nearly the whole breadth of the peninsula, falls, by several mouths, into the Bay of Bengal.

Gog'ra, a river of Hindostan, which rises in the Himalaya, and flows into the Ganges above Patna.

Golcon'da, a ruinous city of Hindostan, Nizam's Dominions, formerly celebrated as a mart for diamonds.

Gom'broon or Bun'der Ab'bas, a seaport of Kerman, in Persia, on a bay of the Gulf of Ormuz; it was formerly a place of great trade. Pop. 5000.

Goruckpore', a town of British India, North-West Provinces. Pop. 45,265.

Gu'jerat or Gu'zerat, a province of Hindostan, Presidency of Bombay, between the Gulfs of Cambay and Cutch, to the S. of Ajmere. It is a flat country, with arid tracts, but many of its districts are very fertile

and highly cultivated. Area, 40,116 square miles. Pop. 2,768,864.

Gurwāl', a native state of India, North-West Provinces, between 30° 2' and 31° 20' N. lat., and 77° 55' and 79° 20' E. long. Area, 4500 square miles. Pop. estimated at 100,000.

Gwal'ior, a city of Hindostan, in the province of Agra, the capital of Scindia, a Mahratta chief. Pop. 50,000.—26, 20 N. 78, 4 E.

HAD'RAMAUT, a province of Arabia, stretching along the southern coast from Yemen to Oman.

Hai'nan, a large island in the Chinese Sea, 180 miles in length and 80 in breadth. It is situated at the E. extremity of the Gulf of Tonquin, and is separated by a narrow channel from the Chinese province of Quang-tung, to which it belongs. Pop. 1,000,000.

Hamadan', a commercial city of Irak-Ajemi, in Persia, supposed to be on the site of the ancient *Ecbat'ana*. Pop. 30,000.—34, 50 N. 48, 32 E.

Ham'ah, the *Hamath* of Scripture, a city of Syria, situated on both banks of the Orontes. It was the dominion of Abulfeda, a celebrated geographer and historian, who died about the year 1331. Pop. 30,000.—35, 10 N. 36, 40 E.

Hamoon', the *Aria Palus* of the ancients, a lake or large morass of W. Afghanistan, into which flows the river Helmund; its length is about 70 miles, and its breadth from 15 to 20.

Hang-choo', the capital of the province of Che-kiang, in China, and one of the finest cities in the empire; it is situated on a navigable river at its junction with the Grand Canal. It has an extensive trade in raw silks and teas. Pop. 600,000.—30, 16 N. 120, 10 E.

Hawkes' Bay, a province of New Zealand, in the south-east of North Island. Pop. 5283.

Hawkesbury, a river of New South Wales, Australia.

Hed'jaz, a province of Arabia, extending along the Red Sea from Mount Sinai to the frontier of Yemen.

Hel'mund, the ancient *Etymandrus*, a river of Afghanistan, which rises near Cabul, and falls into Lake Hamoon.

Herat', the ancient *Aria*, a commercial city of Afghanistan, in an extensive and fertile plain. It is

strongly fortified. Pop. 20,000.—34, 48 N. 62, 30 E.

Hil'lah, a town of Irak-Arabi, in Asiatic Turkey, on the banks of the Euphrates. It stands near the site of the ancient *Babylon*, the remains of which are still to be seen in the vicinity, consisting of vast masses of ruins and bricks. Pop. 10,000.—32, 26 N. 44, 28 E.

Hima'laya, the *Emo'di* of the ancients, a stupendous range of mountains between Hindostan and Tibet, extending in length about 1500 miles, and in breadth from 100 to 300 miles. Its loftiest peak, Mount Everest, in lat. 27° 59' 16" N., and long. 85° 58' 8" E., is 29,002 feet above the sea-level, being the highest known point of the earth's surface.

Hindoo' Koosh or Indian Caucasus, a range of lofty mountains on the N. of Cabul, forming a continuation of the Himalaya chain.

Ho'ang-ho or Yellow River, a large river of China. Issuing from the mountains of Tibet, and pursuing a circuitous course of 2600 miles through some of the finest provinces of China, it falls into the Yellow Sea.

Ho'ang-Shan, a mountain in Nganhoei, China.

Hob'art Town, the capital of Tasmania, on the river Derwent, about twenty miles from its mouth. It stands on a cove or bay, affording one of the best and most secure anchorages in the world. Pop. 19,449.—42, 53 S. 147, 21 E.

Homs, the ancient *Em'esa*, a city of Syria, on the borders of the Desert. Pop. 30,000.

Ho-nan', a central province of China, watered by the Hoang-ho. It is so fertile as to be called the "Garden of China." Pop. 23,037,171.

Hong-Kong, a small island at the mouth of the Canton river (Bocca Tigris), ceded by the Chinese to the British in 1842. It is about 37 miles from Macao, and 100 miles from Canton. Victoria, the capital, was founded in 1842. Pop. 124,850. Area, 29 square miles.—22, 15 N. 114, 18 E.

Hong'tse, an extensive lake of China, in the province of Kiang-su.

Hoog'ly, a branch of the Ganges. See Ganges and Calcutta.

Hoo-nan', a province of China, to the W. of Kiang-si. It is hilly, but fertile, and is rich in minerals. Pop. 18,652,507.

Hoo-pe', a province of China, to

the S. of Hoo-nan, traversed by the Yang-tse-kiang. Pop. 27,370,098.

Ho'reb, a mountain of Arabia, N. W. from Mount Sinai, celebrated in sacred history as containing the rock from which, when struck by Moses, water issued to relieve the thirst of the Israelites.

Hué, the capital of Cochín-China, situated on a navigable river ten miles from the sea; it is strongly fortified. Pop. about 100,000.—16, 30, N. 107, 12 E.

Hurd'war, a town of Hindostan, North-West Provinces, situated on the Ganges, where it issues from the Himalaya Mountains. It is famous as a place of pilgrimage; its fair is the greatest in India.

Hyderabad', the capital of the province of Sindé, Bombay Presidency, near the E. bank of the Indus, with a strong fortress. Pop. 25,000.—25, 22 N. 68, 42 E.

Hydrabad', a province of the Decan, forming part of the dominions of the Nizam. Area, 93,337 square miles. Pop. 10,666,080.

Hydrabad', the capital of the above province, and of the Nizam's dominions. Pop. 200,000.—17, 22 N. 78, 32 E.

I'DA, a mountain of Asia Minor, opposite the entrance of the Dardanelles, 5292 feet high.

I'li, a river in the Dzungarian district of Mongolia and Asiatic Russia, falling into Lake Balkash.

I'li or Goul'ja, a town of Dzungaria, Mongolia, on the Ili. Pop. 40,000.

Imeri'tia, part of the ancient *Colchis*, a country S. of the Caucasus, subject to Russia. Pop. 220,000.

Indian Archipel'ago, called also the Eastern Archipelago. See *Malayasia*, p. 233.

Indore', a city of Hindostan, in the province of Malwa, the capital of Holkar's dominions. Pop. 15,000.—22, 42 N. 75, 50 E.

In'dus or Sindé, a large river of Asia, which rises in the table-land of Tibet, about 31° 20' N. lat., and 80° 30' E. long. Flowing N. W. it passes Leh in Ladak, Cashmere, and, after a course of about 250 miles, is joined by the Shyook. After penetrating the Himalaya, it takes a southerly course, and, near Attock, is joined by the Cabul, when it becomes in many places rapid and deep. About 400 miles farther down it receives, in one united stream, the five rivers of the

Punjab, and, dividing into several channels, falls into the sea by seven mouths. See Punjab.

I'rak or I'rak-Aje'mi, the most important province of Persia, comprehending the ancient *Media*.

I'rak-Ar'abi, the ancient *Chalde'a*, a province of Asiatic Turkey, comprehended in the modern pashalic of Bagdad. It is watered by the Euphrates and the Tigris.

Iran', the name by which Persia is known to the natives.

Irk'utsk, a flourishing commercial city, the capital of E. Siberia, situated on the Angara, in a fine plain. Pop. 28,000.—52, 7 N. 104, 2 E.

Irrawa'dy, a large river which has its source in Tibet, flows through the entire extent of the Birman Empire and the province of Pegu and, after branching into an immense delta, falls by numerous mouths into the Bay of Bengal, E. of Cape Ne-grais.

Ir'tish, a river of Asiatic Russia, which, rising in the Altai Mountains, on the borders of Mongolia, flows through Lake Zaisang, and, after a long and winding course N. W., joins the Obi below Tobolsk.

Iskar'do, a town of Cashmere, on the Upper Indus.

Ispahan', in the province of Irak, formerly the capital of Persia, and one of the most splendid cities of the East; though much decayed, it is still magnificent, and has an extensive trade, with flourishing manufactures. Pop. 180,000.—32, 39 N. 51, 48 E.

JAF'FA or Yaf'a, the ancient *Joppa*, a fortified town of Palestine, on a tongue of land projecting into the Mediterranean. Pop., 25,000.—32, 3 N. 34, 44 E.

Japan' Islands. See Remarks, p. 231.

Japan', Sea of, between the islands of Japan and the E. coast of Manchooria.

Ja'va, a large island of the Eastern Archipelago, separated from Sumatra by the Straits of Sunda. It extends from east to west about 600 miles, with an average breadth of 100; and is divided through nearly its whole length by a range of volcanic mountains. The Dutch possessions are chiefly on the N. coast, which has a great number of rivers and fine bays. Java surpasses all the other islands of the Archipel-

ago in fertility and population; it is fruitful in rice, sugar, and coffee, and has extensive forests of teak. Area, 52,000 square miles. Pop. 11,900,000.

**Jaxartes** or **Sir-Daria**, a large river, rises in the mountains which separate Turkestan and Eastern Turkestan, and, after a long course chiefly N. W. through the S. W. part of Asiatic Russia, falls into the Sea of Aral.

**Jed'do** or **Yed'o**, the capital of Japan, situated at the head of a deep bay on the E. coast of the island of Nippon. It is a place of great trade, and has many spacious palaces and public buildings. Pop. estimated at 700,000.—35, 40 N. 139, 50 E.

**Jelalabad**, a town of Afghanistan, near the Cabul river, famous for the siege which it sustained when garrisoned by the British force under Sir Robert Sale in 1841-2. Pop. 8000.

**Jer'icho**, an ancient city of Palestine, situated in a pastoral vale to the W. of the river Jordan. It is now a mean village.

**Jerus'alem**, a city of Palestine, the celebrated capital of ancient Judea, situated on the declivity of a hill, at the extremity of an extensive plain. The splendour of its first and second temples, the destruction of the city by Titus, and the dispersion of the Jews by Adrian, are events known to every reader of history. The recovery of Jerusalem and the Holy Land from the Saracens was the great object of the Crusaders. It was taken, in 1099, by Godfrey of Bouillon, who was created King of Jerusalem, and retaken by Saladin in 1187. Pop. about 15,500, of whom one-fourth are Christians.—31, 47 N. 35, 13 E.

**Jes'so** or **Yes'o**, a large island of Japan to the N. of Nippon, from which it is separated by the Straits of Sangar. Estimated area, 62,500 square miles.

**Jid'dah**, a seaport of Arabia, on the coast of the Red Sea. It is a place of great trade, and may be considered the port of Mecca. Pop. about 22,000.—21, 28 N. 39, 13 E.

**Jor'dan**, a celebrated river of Palestine. Issuing from Mount Hermon, a branch of Anti-Libanus, it forms, with some other streams, the small lake Merom. Passing afterwards through the great lake called the Sea of Tiberias, and then flowing through

an extensive plain, it falls into the Dead Sea.

**Joudpore**, a city of Hindostan, the capital of the Rajpoot state of Marwar. Pop. 80,000.

**Juggernaut**, or more properly **Jagganna'tha**, "the lord of the world," a town and celebrated temple on the coast of Orissa, in Hindostan. On certain festivals, a wooden idol representing one of the incarnations of Vishnu is placed, superbly dressed, on an immense car, or moving tower, which is dragged by a train of priests, and accompanied by a great concourse of pilgrims. Pop. 29,705.

**Jul'lindar Doab**, the tract of land in the Punjab between the rivers Sutlej and Beas, ceded to the British in 1846.

**Jullundhur**, a town in the Punjab, British India. Pop. 40,000.

**Jum'na**, a river of Hindostan, which issues from the Himalaya range, flows through Delhi and Agra, and joins the Ganges at Allahabad.

**Jyepore**, a handsome and strongly fortified city of Hindostan, the capital of a Rajpoot principality, in the province of Ajmere. Pop. 60,000.—26, 58 N. 75, 51 E.

**KAI-FONG**, the capital of the province of Ho-nan, in China, near the Hoang-ho.—34, 50 N. 114, 33 E.

**Kaisa'riah**, the ancient *Cæsarea Masa'ca*, a town of Caramania, in Asia Minor. Pop. 25,000.—38, 42 N. 35, 22 E.

**Kamtschat'ka**, a peninsula in the eastern extremity of Asiatic Russia. Though situated within the temperate zone, the cold is severe, owing partly to the elevated chain of mountains which traverses nearly its whole length, and partly to the winds blowing from the Polar seas. The country abounds in wild animals, many of which yield valuable furs. The inhabitants live during winter in huts under ground, and travel in sledges drawn by dogs. Pop. 8000.

**Kangaroo**, an island off the coast of S. Australia, 80 miles in length, with an average breadth of 20 miles.

**Kan-si**, the most N. W. province of China. Area, 400,000 square miles. Pop. 15,000,000.

**Kar'a**, Sea of, a portion of the Arctic Ocean, between Nova Zembla on the N. and the Russian governments of Archangel and Tobolsk on the S.



**Kar'ak**, a small island in the Persian Gulf, belonging to the British.

**Karakorum**, a range of mountains in Central Asia, diverging from the western section of the Kuen-lun chain, in a S. E. direction, and stretching to the E. of Lassa, Tibet. The culminating point is Dipsang Peak, 28,278 feet high.

**Kars**, a city of Turkish Armenia, famous for its siege and capture by the Russians in 1855. Pop. 12,000.

**Kash'gar** or **Cash'gar**, a town of Eastern Turkestan. It has considerable trade and manufactures. Pop. 16,000.

**Kastamou'ni**, a town of Anatolia, in Asia Minor. Pop. 12,000.—41, 20 N. 34, 0 E.

**Kelat**, the capital of Beloochistan, on a hill 6000 feet above the sea. Pop. 12,000.—28, 52 N. 66, 30 E.

**Kerbe'la** or **Mesh'ed Hos'sein**, a town of Irak-Arabi in Asiatic Turkey, near the Euphrates, with which it is connected by a canal. The population are chiefly Persians, with whom it is a holy city, containing the splendid tombs of the Imaums Hossein and Abbas. Pop. 15,000.

**Ker'man**, the ancient *Carmania*, a province of Persia, to the E. of Fars; it is interspersed with extensive tracts of desert. Pop. 600,000.

**Ker'man**, the capital of the above province; it was once a place of great importance, but, having been taken by Aga Mohammed in 1794, it has never recovered its splendour. Pop. 80,000.—29, 48 N. 56, 30 E.

**Ker'manshah**, the ancient *Choaspes*, a town of Persia, near the Kerkah, on the great south road from Persia into Asiatic Turkey. Pop. 80,000.

**Ke'sho** or **Cach'ao**, the capital of Tonquin, on the river Sang-koi, about 100 miles from its mouth. Pop. 150,000.

**Kha'mil** or **Ha'mi**, a town of Eastern Turkestan, N. E. of Lake Lob Nor.

**Klin'gan**, an extensive range of mountains between Mongolia and Manchooria.

**Kai'va** or **Kha'rism**, a province of Turkestan, to the S. of the Sea of Aral, traversed by the Oxus. Pop. 200,000.

**Kai'va**, the capital of the above province, near the Oxus. P. 12,000.

**Kaooloom'**, a strong town of Turkestan, in the khanat of Koon-duoz. Pop. 10,000.

**Khoras'an**, an extensive province of Persia, now divided between the Shah of Persia and the Afghans. The great Salt Desert extends over the larger part of it. Pop. 1,000,000.

**Kho'ten**, a province of Eastern Turkestan, formerly belonging to China, but now independent. Pop. 250,000. The capital, Khoten or Ilchi, is a manufacturing city of considerable importance. Pop. 40,000.

**Kluzistan'**, the ancient *Susiana*, a province of Persia, east of the Shat el Arab.

**Kiach'ta**, a frontier town of Asiatic Russia, at which and the contiguous Mongolian town of Maimatchin an active trade between these empires is carried on. Pop. 5431.—50, 20 N. 106, 35 E.

**Kiang-si'**, a fine province of China, to the west of Che-kiang and Foki-en, bordered by high mountains, many of which are cultivated to the summits. Pop. 23,046,999.

**Kiang-su'**, a maritime province of China, to the north of Che-kiang. Pop. 87,848,501.

**King-ki-ta'o**, the capital of Corea, and the residence of the sovereign. —37, 30 N. 127, 20 E.

**Kioo-long-Shan**, a range of mountains in China, between Shen-si and Se-chu-en.

**Kir'ia**, a town of Eastern Turkestan, 138 miles E. of Khoten, with an active inland trade; there are gold-mines in the vicinity.

**Ki'rin Oo'la**, a town of Manchooria, on the Songari.

**Kishm**, an island at the entrance of the Persian Gulf, belonging to the Imaum of Muscat. Pop. 5000.

**Kist'nah** or **Krish'na**, a river of Hindostan, which rises in the Western Ghauts, and, after a course of 700 miles, falls into the Bay of Bengal near Masulipatam.

**Kiz'il-Ir'mak**, the ancient *Halys*, a river of Asia Minor, which issues from Mount Taurus, and flows into the Black Sea.

**Kiz'il-Ou'zen**, the ancient *Mar-dus*, a river of Persia, which rises in Diarbekir, and, after a winding course, falls into the Caspian near Resht.

**Ko'jend** or **Kho'jend**, a town of Asiatic Russia, on the Jaxartes or Sir-Daria, formerly within the khanat of Kokan. Pop. 25,000.

**Kokan'**, khanat of, in Turkestan,



the *Fergana* of the ancients. Pop. 180,000.

Kokan', the capital of the above khanat, situated on the Jaxartes or Sir-Daria, in a fertile plain. Pop. 50,000.

Koko Nor, or the Blue Lake, a large expanse of water in Mongolia, on the borders of China.

Kolyvan', a town of W. Siberia, on the Obi; in the vicinity are rich silver-mines.

Ko'niak, the ancient *Ico'niwm*, the chief city of Caramania, in Asia Minor, formerly the capital of a kingdom. Pop. 50,000.—37, 52 N. 32, 40 E.

Koon'dooz, a khanat of Turkestan, separated from Cabul by the Hindoo Koosh.

Koon'dooz, the capital of the above khanat. Pop. 1500.

Kos, the ancient *Cos*, an island near the Asiatic coast, belonging to Turkey. It is celebrated as the birthplace of Hippocrates and Apelles.

Kos'gol, a lake in the N. of Mongolia, 150 miles long and 40 miles wide.

Kuei-choo' (Kwe), a province in the S. W. of China; it is very mountainous, and contains mines of gold, silver, vermillion, and iron. Kuei-yang is the capital. Pop. 5,288,219.

Kuen-lun', a range of mountains separating Tibet from Eastern Turkestan.

Kumaon', a mountainous district in the North-West Provinces of Hindostan, to the W. of Nepaul. Pop. 166,755.

Kur, the ancient *Cyrus*, a river of Georgia, which rises on the borders of Armenia, passes Tiflis, and, after being joined by the Aras, falls into the Caspian.

Kurdistan', the ancient *Assyria*, the country of the Kurds, a rude and mountainous district belonging partly to Asiatic Turkey and partly to Persia. Pop. 2,000,000.

Ku'riles, a range of islands on the E. extremity of Asia, extending 700 miles from Kamtschatka to the island of Jesso, belonging partly to Russia and partly to Japan.

Kurrachee', the principal seaport of Sind, W. Hindostan, on an inlet of the Indian Ocean. Pop. 22,277.

Kurshee', a town of Bokhara, Turkestan. Pop. 10,000.

Kutal'ah, the ancient *Cotyæum*, a handsome town of Anatolia, in Asia

Minor, on a tributary of the Sakaria; it has considerable trade. P. 50,000.—39, 24 N. 30, 18 E.

LA'BUAN, an island of the Eastern Archipelago, off the N. W. coast of Borneo. Length 10 miles, breadth 5 miles. It was taken possession of by the British in 1846. Pop. 3545.—5, 22 N. 115, 10 E.

Lac'cadives, a group of islands off the coast of Malabar, surrounded by coral reefs. Pop. about 6800.

Lach'sa, a district of Arabia, lying along the W. shore of the Persian Gulf. Pop. 100,000.

Lach'sa, the capital of the above district, situated on the river Haffan.

Lad'ak, a province of Cashmere, W. of Tibet, between 32° 20' and 35° N. lat., and 75° 30' and 79° 30' E. long. Pop. 125,000.

Ladrones' or Ma'rian Islands, a group in the N. Pacific, E. of the Philippines and N. of the Carolines, belonging to Spain. Pop. 5500.

Lahore' or the Punjab', a province of British India, to the S. of Cashmere, bounded on the W. by the Indus. Pop. 7,000,000.

Lahore', a city of N. Hindostan, the capital of the Punjab, situated on the Ravee, on the great road from Delhi to Cabul. Pop. 95,000.—31, 30 N. 74, 20 E.

Lanchang', the capital of Laos, in the Indo-Chinese Peninsula, on the Menam-kong; it is described as a large and handsome city. Pop. stated at 50,000.

Lan-choo', a city of China, the capital of Kan-si, the N. W. province, on the Hoang-ho.

La'os, a large native state in the Indo-Chinese Peninsula, surrounded by Birmah, Siam, Cochinchina, and China, and inhabited by various tribes, known by the name of the Shans. The great river Menam-kong traverses it from N. to S. Pop. 1,000,000.

Lar, the capital of Laristan, a province of Persia. Pop. 12,000.

Laristan', a province of Persia, bordering on the Persian Gulf.

Las'sa, the capital of Tibet, and the residence of the Dalai or Grand Lama, the head of the Shaman religion. Pop. 20,000.

Lata'kia, a seaport of Syria, with some interesting remains of antiquity. Pop. 7000.—35, 30 N. 35, 46 E.

Launces'ton, a seaport in the north of Van Diemen's Land, on

the Tamar. Pop. 10,539.—41, 30 S. 147, 14 E.

Leao-tong', a province of the Chinese Empire, N. of the Great Wall, nominally comprised in Manchuria. The gulf of the same name is an inlet of the Yellow Sea, 150 miles long, and from 70 to 120 miles broad.

Leb'anon or Lib'anus, a chain of mountains in Syria, extending from the vicinity of Tripoli to the borders of Palestine. The loftiest summit is 10,050 feet in height, and is covered with snow. The various peoples inhabiting Lebanon and its valley are about 487,000 in number.

Leh, the capital of the province of Ladak, Cashmere, near the Upper Indus; it is the seat of a considerable trade, being the principal depôt for the shawl wool. Pop. 6000.—34, 10 N. 77, 45 E.

Le'na, a large river of Siberia, which rises in the mountains N. W. of Lake Baikal, and falls into the Arctic Ocean by several mouths.

Les'bos or Mytilè'nè, a large island belonging to Turkey, near the coast of Asia Minor, celebrated in antiquity as the birthplace of Sappho, Alcæus, and Theophrastus; and in modern times, of Barbarossa, so distinguished in the early maritime history of Europe. Pop. 40,000.—39, 15 N. 26, 20 E.

Levant', the, a name often applied to the eastern part of the Mediterranean and its shores.

Liv'erpool, a town of New South Wales in Australia, 20 miles from Sydney. Pop. 1053.

Lob Nor, a lake of Eastern Turkestan, on the great caravan-route from Kashgar to China.

Lom'bok, an island of the Indian Archipelago, between 8° and 9° S. lat., and 116° and 117° E. long., to the E. of Bali and W. of Sumbawa. It is well cultivated, produces coffee, rice, and maize. Pop. 250,000.

Loo-choo, a group of islands, 36 in number, tributary to China, lying between the island of Formosa and the Japan Islands. The principal island, called the Great Loo-choo, about 60 miles in length by 12 in breadth, has a fertile soil and a fine climate.

Loodia'naḥ, a fortified town and British military station in Sirhind, Punjab, N. Hindostan, on the Sutlej. Pop. 47,191.

Lopat'ka, Cape, the southern extremity of Kamtschatka.—51, 2 N. 156, 46 E.

Low or Dangerous Archipelago, an extensive and intricate group of coral reefs and islands in the S. Pacific, to the E. of the Society Islands.

Luck'now, the capital of the province of Oude in British India, on the Goomty, a tributary of the Ganges. It is noted for its heroic defence against the Sepoy rebels in 1857. Pop. 300,000.—26, 50 N. 80, 58 E.

Luristan', a province of Persia. Its capital, Khorramabad, has a population of about 5000.

Lu'zon, the principal of the Philippine Islands. It is intersected by high mountains, having several active volcanoes. See Philippine Islands. Pop. of Spanish portion, 1,822,200.

Lyt'telton, a town of New Zealand, E. coast of South Island, on Port Victoria. Pop. 2510.

MACA'O, a seaport and settlement of the Portuguese, on an island in the Bay of Canton, in China. Pop. 35,000.—22, 24 N. 113, 30 E.

Macas'sar or Mankas'ser, a town and settlement belonging to the Dutch, in the S. W. of the island of Celebes, with a strong fort. Pop. 12,000.—5, 9 S. 119, 36 E.

Macas'sar, Straits of, an arm of the Indian Ocean, separating the islands of Borneo and Celebes.

Madras', the capital of the British possessions in S. Hindostan; it stands on a flat shore, along which runs a rapid current, with a violent surf. Fort St George is a strong and handsome citadel. Pop. 460,000.—13, 4 N. 80, 14 E. The Madras Presidency, including the native states, contains 355,846 square miles. Pop. 43,538,265.

Madu'ra, a fortified city of Hindostan, Madras Presidency, the capital of a district of the same name. Pop. 20,000.—9, 55 N. 78, 10 E.

Madu'ra, an island of the Indian Archipelago, on the N. E. coast of Java, from which it is separated by a narrow strait. Pop. 280,000.

Mahanud'dy, a river of Central Hindostan, which, after an E. course of 500 miles, enters the Bay of Bengal by numerous mouths.

Maima'tchin, a frontier town of Mongolia, near the Russian town of Kiachta, one of the chief places of trade between Russia and China. Pop. 5000.

**Makal'lah**, a seaport of Arabia, on its S. coast, with a good harbour. Pop. 4500.—14, 31 N. 49, 6 E.

**Malabar**, a maritime province of S. Hindostan, extending 150 miles along the W. coast, between Canara and Cochin. Pop. 1,514,909.

**Malac'ca**, a town of the Malay Peninsula, the capital of a British settlement of the same name. Pop. of the town, 12,000; population of the settlement, 71,600.—2, 14 N. 102, 14 E.

**Malac'ca**, Straits of, the narrow sea separating the Malay Peninsula from the island of Sumatra.

**Malay**, Malacca, or the Malay Peninsula, a country of India beyond the Ganges, connected with the British provinces on the north by the isthmus of Kraw. It is about 750 miles in length, with an average breadth of 120 miles, and is traversed from N. to S. by a range of mountains, from which descend numerous streams. Its shores are thickly studded with small islands. Malaya Proper, extending from 1° 20' to 7° N. lat., is divided among several small native states, besides the British settlements of Malacca and Province Wellesley. Estimated area, 45,000 square miles. Pop. about 273,321.

**Mal'dah**, a town of British India, Bengal Presidency. Pop. 15,000.

**Mal'dives**, a cluster of small coral islands in the Indian Ocean, S. W. from Cape Comorin. Cocoa-nuts and cowrie-shells (the latter used by the Hindoos as money) are their principal produce. Pop. between 150,000 and 200,000.

**Manaar**, Gulf of, a strait separating the island of Ceylon from the peninsula of Hindostan. Across it runs a narrow ridge of rocks and sandbanks, termed Adam's Bridge.

**Manchoo'ria**, an extensive region of the Chinese Empire, diversified by mountain-ranges, and covered with thick forests. It is the country of the Manchoo Tartars, who conquered China in 1644, and are still masters of that country. Pop. estimated at 6,000,000.

**Mandavee**, a seaport of Hindostan, on the N. shore of the Gulf of Cutch, having a flourishing trade with Arabia, Bombay, and the Malabar coast. Pop. 60,000.—22, 58 N. 69, 28 E.

**Mangalore**, a seaport of Hindostan, Presidency of Madras, the capital of the province of South Canara;

it has a great export trade in rice. Pop. 20,000.—12, 54 N. 74, 58 E.

**Manil'la**, the capital of the Spanish settlements in the Philippines, situated upon a noble bay on the S. W. coast of the island of Luzon. Pop. including the suburbs, 100,000.—14, 35 N. 121, 2 E.

**Mani'sa**, anciently *Magnesia ad Sipylum*, a city of Anatolia, in Asia Minor, near the Sarabat; it is famous for its saffron groves. Pop. 20,000.

**Mansarowa'ra** or **Manasarova'ra**, a lake in Tibet, situated in a high table-land, and considered one of the most sacred of all the Hindoo places of pilgrimage.

**Mar'agha**, a walled city of Persia, province of Azerbaijan, 50 miles S. of Tabriz. Pop. about 20,000.

**Marl'borough**, a province of New Zealand. Pop. 4371.

**Marque'sas**, a group of islands in the S. Pacific, belonging to France. Their general aspect is beautiful, and their soil fertile. The natives are strong, tall, and well formed. Pop. 13,000.

**Martaban**, Gulf of, an inlet of the Bay of Bengal, having Pegu on the N. W. and the Tenasserim Provinces on the S. E.

**Martaban**, a frontier town of Pegu, on the Gulf of Martaban, near the mouth of the Saluen. Pop. 6000.—16, 32 N. 97, 35 E.

**Masulipatam**, a seaport of Hindostan, in the Northern Circars, noted for the manufacture of fine chintz. Pop. 28,000.—16, 9 N. 81, 14 E.

**Mats'mai**, the capital of the Japanese island of Jesso. Pop. 50,000.

**Mazanderan**, a province of Persia, stretching along the southern shore of the Caspian. Pop. 150,000.

**Mec'ca**, a city of Arabia, the capital of the province of Hedjaz, situated in a narrow valley. It is celebrated as the birthplace of Mohammed in 569, and is venerated by the Mussulmans as their Holy City. It contains a spacious temple, in the centre of which is the Kaaba or shrine of the Prophet. Mecca is still the annual resort of numerous pilgrims. Pop. 30,000.—21, 28 N. 40, 15 E.

**Medi'na**, a city of Arabia, in the province of Hedjaz, on the border of the Desert; it is held sacred among the Mussulmans as containing the tomb of Mohammed, which is enclosed within a great mosque. Pop. 15,000.—25, 15 N. 39, 30 E.

**Meerut'**, a town and military station of British India, in the Presidency of Bengal, 85 miles N. E. of Delhi. Here the Sepoy mutiny broke out in May 1857. Pop. 79,378.

**Mei'-ling Mountains**, a range in the S. W. of the Chinese province of Kiang-si.

**Mein'der**, the ancient *Mean'der*, a river of Asia Minor, which flows westward into the Archipelago.

**Mek'ran**, the *Gedro'sia* of the ancients, the S. or maritime part of Beloochistan; it contains extensive deserts. Pop. 200,000.

**Mel'bourne**, a seaport of Australia, the capital of the colony of Victoria, on the beautiful bay of Port Phillip. Pop. 140,000.—37, 48 S. 144, 57 E.

**Me'nam** or **Mei'nam**, a river which is supposed to rise in the mountains of Yun-nan, in China, and, after a course of about 800 miles, enters the Gulf of Siam below Bangkok.

**Me'nam-kong** or **Me-kong**, a large river, supposed to have its source in the mountains of Tibet; it passes through the Chinese province of Yun-uan, and, after traversing Laos and Cambodia, falls into the Chinese Sea.

**Mer'gui**, the capital of the British province of Tenasserim, in the Eastern Peninsula, at the mouth of a river of the same name. Pop. 8000.

**Mer'gui Archipel'ago**, a chain of islands, extending about 150 miles along the coast of Tenasserim; the principal are St Matthew and Domel.

**Mia'co**, a city of Japan, in the island of Nippon, the ecclesiastical capital and residence of the Dai-ri. Pop. 475,000.—35, 3 N. 135, 52 E.

**Mindana'o**, the most S. of the Philippine Islands, 800 miles in length. See Philippines.

**Mirzapore'**, a city of Hindoستان, in the North-West Provinces, situated on the Ganges. It is a great mart for cotton, and has extensive manufactures. Pop. 71,849.

**Mo'cha**, a city of Yemen, in Arabia, the principal port on the Red Sea; it is noted for the coffee produced in its vicinity. Pop. 7000.—13, 20 N. 43, 12 E.

**Moluc'ca Passage**, that part of the Indian Ocean which separates the island of Celebes from the island of Gilolo.

**Moluc'cas** or **Spice Islands**, a group in the Indian Archipelago, between Celebes and New Guinea, famous for

the production of cloves. The chief islands are Gilolo, Amboyna, Ceram, Ternate, and Tidore. See Banda.

**Mongo'lia**, an extensive region of the Chinese Empire, the native country of the Mongols. A considerable part of it is covered with the great desert of Gobi or Shamo. Estimated area, 1,804,000 square miles. Pop. about 6,000,000.

**Mool'tan**, an ancient city of the Punjab, N. Hindostan, situated about 4 miles E. of the Chenab. Pop. 80,000.—30, 10 N. 71, 30 E.

**Moorshedabad'**, a city of British India, in the province of Bengal, of which it was long the capital. Pop. 146,963.—24, 10 N. 88, 15 E.

**Morad'abad**, a town of British India, North-West Provinces, on a ridge between the Ramgunga and Ganges. Pop. 57,414.

**Mo'sul**, a city of Asiatic Turkey, situated on the W. bank of the Tigris, nearly opposite the site of the ancient *Nineveh*. On the E. bank of the river many interesting remains of Nineveh have been discovered. Pop. 40,000.—36, 20 N. 43, 0 E.

**Mouk'den** or **Chin-yang'**, the capital of Leao-tong, a province of Manchooria, consisting of an inner and outer city. Pop. 200,000.—41, 50½ N. 123, 40½ E.

**Moul'mein**, a seaport, the capital of a British province in the Eastern Peninsula, at the mouth of the Saluen. Pop. 70,849.—16, 30 N. 97, 37 E.

**Mur'ray**, the principal river of Australia. It rises in the Australian Alps, and, after a course of 1060 miles, reaches Encounter Bay by Lake Alexandrina.

**Mus'cat**, a strongly fortified seaport of Arabia, the capital of Oman, near the entrance of the Persian Gulf. It is a place of great trade, and belongs to the Imaum of Muscat, a powerful native chief. Pop. 60,000.—23, 37 N. 58, 38 E.

**Mush'ed**, a fortified city of Persia, the capital of Khorassan, situated in a fine plain. Pop. 80,000.—36, 18 N. 59, 25 E.

**Mussendom'**, Cape, a bold promontory of Arabia, at the entrance of the Persian Gulf.—26, 24 N. 56, 34 E.

**Mut'tra**, a populous town of Arabia, in Oman, 8 miles S. W. of Muscat.

**Mut'tra**, a town of British India,

North-West Provinces, on the right bank of the Jumna. Pop. 65,749.

Mysore', a state of S. Hindostan, consisting of a high table-land, from which rise a number of lofty hills. As it is nearly 3000 feet above the sea, its climate is unusually temperate and healthy. It is subsidiary to the British. Area, 30,886 square miles. Pop. 3,000,000.

Mysore', the capital of the above state. Pop. 54,729.—12, 16 N. 76, 42 E.

NAB'LOUS, a city of Palestine, in a fertile valley, near the site of the ancient *Shechem*. Pop. 8000.—82, 15 N. 85, 13 E.

Nagpore', a city of Central Hindostan, with considerable manufactures. Pop. 111,231.—21, 8 N. 79, 10 E.

Nan-chang', the capital of the province of Kiang-si, in China, on the Kan-kiang; it is a great seat of the porcelain manufacture. Pop. 300,000.—28, 35 N. 116, 0 E.

Nangasa'ki, a seaport of Kiusiu, one of the Japanese Islands; it is the principal commercial city of the empire. Pop. 80,000.—82, 45 N. 129, 52 E.

Nankin', a city of China, at one time the capital of the empire, and still the capital of the province of Kiang-su; it is situated near the S. bank of the Yang-tse-kiang, about 100 miles from its mouth. It communicates by the Grand Canal with Pekin. Though it has greatly declined since the government was transferred to Pekin, it is still considered the chief seat of learning in the empire, and is noted for its paper and silk manufactures, as well as for the cottons bearing its name. Pop. about 400,000.—32, 2 N. 118, 48 E.

Nav'igators' Islands, a group in the South Pacific, to the N. E. of the Friendly Islands. They are mountainous, with rich and well-wooded valleys. The natives are tall and finely formed, but savage and ferocious. Pop. 60,000.

Ned'jed, the largest division of Arabia, including nearly all its central parts, and consisting chiefly of a high table-land, and rude pastoral valleys. It is the country of the Wahabees. Pop. 1,400,000, exclusive of about 200,000 Bedouins, who are subject to the Imaum of Nedjed.

Ne'grais, Cape, the S. W. extremity of the Eastern Peninsula, at the

western mouth of the Irrawady.—16, 2 N. 94, 12 E.

Neilgher'ries, a range of mountains on the S. of Mysore in India, between 11° and 12° N. lat., and 76° and 79° E. long. Their agreeable and healthy climate, and romantic scenery, make them a favourite resort of invalids.

Nel'son, a province of New Zealand, in South Island. Gold was discovered here in 1857. Pop. 23,814.

Nepaul', a native state of N. Hindostan, separated from Tibet by the Himalaya Mountains, and bounded on the S. by the provinces of Oude, Bahar, and Bengal. It is under the government of a rajah. Its length from W. to E. is 500 miles; its breadth, 160 miles. Area, 54,500 square miles. Pop. 2,000,000.

Nerbud'da, a river of Hindostan, which rises in the British district of Ramgurh, and falls into the Gulf of Cambay, after a course of 750 miles.

Ner'tchinsk, a town of Eastern Siberia, on the Chilka, an affluent of the Amoor, in the neighbourhood of rich lead and silver mines. Pop. 3000.

New Brit'ain, an island in the S. Pacific, between 5° and 7° S. lat., and 148° and 153° E. long. The inland parts are rocky and mountainous.

New Caledo'nia, an island in the S. Pacific, between 20° and 23° S. lat., and 164° and 167° E. long. Its length is about 250 miles, and its breadth 30 miles. It belongs to France. Pop. 45,000.

Newcas'tle, a seaport of Australia, in New South Wales, at the mouth of the Hunter, in the vicinity of rich coal-mines. Pop. 1462.

Newchang', a city of the province of Leao-tong, Manchooria. Pop. 30,000. Its port, of the same name, is on the Leao-tong river, about 90 miles from the city. Fifty years ago only a few huts occupied the site; now the town lines the river-bank for about two miles. Pop. estimated at from 50,000 to 60,000.

New Guin'ea or Pap'ua, a large island of the Eastern Archipelago, extending from the Moluccas, in a S. E. direction, about 1200 miles, its width varying from 18 to 500 miles. It is separated on the south from Australia by Torres Strait. Little is known of it beyond the coasts. It rises into hills of considerable height; and forests of palm and other tall

trees give proof of the fertility of the soil.

**New Heb'ridès**, a group of islands in the S. Pacific, between 13° and 20° S. lat., and 167° and 170° E. long. They are mountainous, well-wooded, and fertile. The natives belong to the race of Australian or Oceanic negroes.

**New Ire'land**, an island to the N. E. of New Britain, from which it is separated by St George's Channel. It has a length of 200 miles, with an average breadth of 14 miles. **New Hanover**, on the W., is about 30 miles long from E. to W.

**New Plym'outh**, now **Tarana'ki**, a province of New Zealand, North Island, on its western coast. Near it is Mount Egmont, 8840 feet high. Pop. 4359.

**New South Wales**. See **Australia**, p. 235.

**New Zea'land**, a colonial possession of Great Britain, consisting principally of a chain of three islands in the Pacific Ocean. The country is rich in minerals, and the soil fertile, producing flax and fine timber in great abundance. Wheat and other grains and vegetables introduced by the colonists are very productive, and grazing grounds afford pasture during all the year. The natives have made some progress in civilisation. In 1840, New Zealand was erected into a British colony. The government is vested in a General Assembly, consisting of a governor, a legislative council appointed by the crown, and a house of representatives. The colony is divided into nine provinces, each having a superintendent and council with legislative powers. Wellington, in North Island, is the seat of government. See **New Zealand**, p. 236.

**Ngan'hoei**, a province of China, traversed by the Yang-tse-kiang. **Ngan-king** is the capital. Pop. 34,168,059.

**Nicobar' Islands**, a group in the S. E. of the Bay of Bengal. They are hilly and covered with wood, but are very unhealthy. Pop. 6000.

**Ning'po**, a city of China, in the province of Che-kiang, situated on a river about 12 miles from the sea. It was entered by the British without resistance in 1841, and was opened to British commerce in the following year. Pop. 250,000.

**Nippon'**. See **JAPAN**, p. 230.

**Nishapoor'**, a city of Persia, in the province of Khorassan, in a fine valley, 40 miles from Mushed. Pop. 8000.

**Nor'folk**, an island in the S. Pacific, 1200 miles N. E. from Sydney, in Australia. It was formerly occupied as a penal settlement, and is now peopled by the descendants of the mutineers of the *Bounty*, who were brought here from Pitcairn's Island in 1856.

**OB** or **Ob'i**, a large river of Asiatic Russia, which rises in the Altai Mountains; traversing Siberia, it receives the Irtysh, and, after a course of 2500 miles, falls into a deep inlet of the Arctic Ocean, called the Gulf of Obi.

**Odeypore'**, one of the Rajpoot States, in W. Hindostan. Pop. 133,000.

**Okhotsk'**, the capital of a district of E. Siberia, on the Sea of Okhotsk. Pop. 800.—59, 20 N. 143, 13 E.

**Olym'pus**, a mountain of Asia Minor, to the S. of Brusa; its summit, 9000 feet high, is covered with perpetual snow.

**O'man**, a division of Arabia, of which the Imaum of Muscat holds the sovereignty. It extends along the eastern coast from Cape Ras al Had to Cape Mussendom, at the entrance of the Persian Gulf.

**Omsk**, a fortified town of W. Siberia, situated on the Irtysh. Pop. 19,467.

**Oor'ga**, a town of Mongolia, on the Tula. Pop. 7000.

**Or'fa**, a city of Algezira, in Asiatic Turkey, the *Edes'sa* of the Greeks and Romans, and supposed to be the *Ur of the Chaldees* mentioned in Scripture. It is a place of considerable trade. Pop. 30,000.—37, 8 N. 38, 50 E.

**Oris'sa**, a province of Hindostan, extending along the coast from the Godavery to Bengal. The districts W. of Bengal are inhabited by a wild race of Hindoos, called *Oureas*. Pop. 4,534,813.

**Or'muz**, a small island at the entrance of the Persian Gulf, once a place of great commerce.

**Oron'tes**, a river of Syria, which issues from Mount Lebanon, N. of Damascus, passes Antioch, and falls into the Mediterranean.

**Osa'ka**, a seaport of Japan, in the island of Nippon; it was laid waste by an earthquake in 1854. Pop. 150,000.—34, 32 N. 135, 25 E.

Ota'go, a province of New Zealand, comprising the south part of South Island. It was founded in 1848. Pop. 48,569.

Otaheite, or Tahiti, the largest of the Society Islands, consists of two peninsulas about 108 miles in circumference. The soil is exceedingly fertile. In this island the influence of Christianity and civilisation has been established by the labours of British missionaries. Pop. 13,800.

Oude (Ood), a province of Hindostan, to the E. of Delhi and Agra. It is watered by the Goomty and Gogra; and its surface is flat and very fertile. It was governed by a native prince, with the title of king, until 1856, when it was annexed to the British territory. Area, 22,458 square miles. Pop. 6,502,884.

Oujein, a fortified city of Central Hindostan, Scindia's territory, situated on the Sippra. It would seem to have been known to the Greeks by the name of *Ose'ne*. Pop. about 150,000.

Owhyhee'. See Sandwich Islands.

Ox'us or Amoo', a large river which issues from Lake Sir-i-kol, N. of the Hindoo Koosh, and, flowing through Bokhara and Khiva, falls into the Sea of Aral, after a course of 1800 miles.

PADANG', a Dutch settlement and fort on the W. coast of Sumatra. Pop. 10,000.—0, 58 S. 100, 20 E.

Palembang', a town in the E. of the island of Sumatra, on a navigable river. Some of the houses are built on rafts anchored near the banks, and others are elevated on posts. Pop. 25,000.

Pal'estine or the Holy Land, the ancient country of the Israelites, and the theatre of the great events of the Mosaic and Christian dispensations. It is bounded on the west by the Mediterranean Sea, and on the north by Syria. Its greatest length is 200 miles; its breadth, 100 miles. Although a mountainous country, it displays in general a luxuriant fertility corresponding to the descriptions of the "promised land." It was divided by the Romans into four provinces: *Judea*, in the south, formerly possessed by the tribes of Judah, Benjamin, Dan, and Simeon; *Samaria*, in the middle, by the tribe of Ephraim, and part of the tribe of *Manasseh*; *Galilee*, in the north, by the tribes of Asher, Naphtali, Zebulun, and Issachar; and *Peræa*, on the

east of Jordan, by the tribes of Reuben, Gad, and the other part of the tribe of *Manasseh*. It is now a part of the Turkish or Ottoman Empire.

Palk's Strait or Channel, separates the island of Ceylon from Hindostan.

Palmy'ra, the *Tadmor* of Scripture, an ancient city in the desert of Syria, the splendour of which is still attested by the magnificence of its ruins.—34, 18 N. 38, 13 E.

Palmy'ras, Point, a headland of Hindostan, on the Bay of Bengal.—20, 41 N. 87, 9 E.

Pal'te, a lake in Tibet, to the S. of Lassa, presenting the singular appearance of a canal five miles broad, surrounding an island about 100 miles in circumference.

Pa'mir, a very lofty plateau or mountain-ridge in Central Asia, whence flow the Oxus and other great rivers.

Pan'jim. See Goa.

Panom'ping, the capital of the kingdom of Cambodia, Indo-Chinese Peninsula.

Pap'ua. See New Guinea.

Paramat'ta, a town of Australia, in New South Wales, at the head of Port Jackson, 15 miles from Sydney. Pop. 4500.

Paropam'isan Mountains. See Ghor Mountains.

Pat'mos, now called Patino, a small island near the coast of Asia Minor, about 26 miles S. of Samos, celebrated as the place where St John wrote the Apocalypse. Pop. 4000.

Pat'na, a city of Hindostan, the capital of the province of Behar, situated on the S. bank of the Ganges. It has a great trade. Pop. 284,122.—25, 37 N. 85, 15 E.

Pegu', a British province of the Eastern Peninsula, watered by the rivers Irrawady and Sittang. It is exceedingly fertile, abounding in rice, and containing large teak forests. Pop. 1,150,189.

Pegu', a city in the province of the same name, now much decayed, but still adorned by a magnificent temple. Pop. about 5000.

Pei'ho or White River, rises in Mongolia, passes near Pekin, and, after forming a junction with the Euho, falls into the Gulf of Pe-tche-li. In June 1859, a British and French squadron was repulsed by the Chinese forts at its mouth, but



they were taken by an allied British and French force in August 1860.

Pekin' or Peking', the capital of the Chinese Empire, is situated in the province of Pe-tche-li, about 50 miles to the S. of the Great Wall. It consists of two distinct parts—the Tartar and the Chinese cities. The former contains the imperial palace and gardens. Peking is about 18 miles in circumference, surrounded by lofty walls, and divided into regular streets. In October 1860, it surrendered to an Anglo-French force, when a treaty of peace was concluded between Britain and France on one side, and the Emperor of China on the other. Pop. 1,650,000.—39, 54 N. 116, 28 E.

Pelew' Islands, a group in the Pacific, between the Philippine and the Caroline Islands. They are well wooded, and the valleys are extremely fertile.

Pe'-ling Mountains, in the S. of the province of Kiang-su, China.

Penang' or Prince of Wales' Island, situated off the W. coast of the Malay Peninsula, from which it is separated by a narrow strait. It is rich in tropical productions, is very healthy, and has lately acquired considerable commercial importance. Pop. 126,700. George Town, the capital, has a pop. of 20,000.—5, 25 N. 100, 23 E.

Per'gamos or Ber'gamo, a city of Asia Minor, on the *Cai'cus*, once the capital of a powerful kingdom, and one of the seven churches of Asia mentioned in the Book of Revelation. Pop. 10,000.

Per'sian Gulf, an arm of the Indian Ocean, separating Persia from Arabia.

Perth, a town on the Swan River, the capital of the colony of Western Australia. Pop. 2500.

Pesha'wur, a city of Afghanistan, situated in a beautiful plain watered by the Cabul, and surrounded by lofty mountains. Pop. 53,295.—34, 5 N. 71, 10 E.

Pe-tche-li', the metropolitan province of China, bounded on the N. by the Great Wall, and on the E. by the Gulf of Pe-tche-li, an inlet of the Yellow Sea. Pop. 27,990,871.

Phil'ippine Islands, an extensive group at the N. E. extremity of the Indian Archipelago, lying between 5° and 20° N. lat., and 117° and 127° E. long. They are extremely fertile, and are clothed with perpetual ver-

ture. The Philippines were taken possession of by the Spaniards in 1565, and still belong to them, though various native tribes remain independent. The principal islands are Luzon, Mindanao, Mindoro, Samar Zebu, Panay, Negros, and Palawan. Area estimated at 120,000 square miles. Pop. 5,000,000.

Pillee'bheet, a town of British India, North-West Provinces. Pop. 26,760.

Pitcairn's Island, a small island in the South Pacific Ocean, inhabited until 1856 by the descendants of the mutineers of the *Bounty*.—25, 3 S. 13, 8 E.

Pondicher'ry, a town on the Coromandel coast, the capital of the French settlements in Hindostan. Pop. 90,000.—11, 55 N. 79, 49 E.

Pontia'na, the principal Dutch settlement on the S. W. coast of the island of Borneo. Pop. of town and district, 19,115.—0, 3 S. 109, 20 E.

Poo'nah, a city of Hindostan, in the Presidency of Bombay. It was the capital of the Mahratta Empire until 1818, when it was incorporated with British India. Pop. 80,000.—18, 30 N. 73, 56 E.

Port Phil'ip, an extensive bay and harbour in the colony of Victoria, in Australia.

Po'yang, a lake of China, in the province of Kiang-si, surrounded by finely wooded hills.

Prince of Wales' Island. See Penang.

Prome, a town of the Eastern Peninsula, on the Irrawady. Pop. 21,807.—18, 50 N. 95, 18 E.

Province Wellesley. See Wellesley, Province.

Pul'icat, a maritime town of Hindostan, at the S. entrance of the lake of the same name, 20 miles N. of Madras.

Punjab', an extensive territory in the N. W. of Hindostan, so named from the five rivers by which it is watered—the Jelum, the Chenab, the Ravee, the Beas, and the Sutlej. They rise in the Himalaya, and, flowing through the Punjab, unite in one stream, which falls into the Indus. The Punjab was annexed to British India in 1849. Pop. 10,435,710.

QUANG-SI', a province in the S. of China, to the W. of Quang-tung, bordering on Tonquin. It is mountainous, and contains gold-mines. Quei-ling is the capital. P. 7,313,886.



Quang-tung', a maritime province in the S. of China, traversed by considerable rivers, which serve to transport merchandise to Canton, its capital. Pop. 19,174,030.

Quedah (Ked'ah), a state of the Malay Peninsula, between 5° 40' and 7° N. lat., and 99° 40' and 101° E. long. Area, about 4500 square miles. Pop. 21,000.

Queen Charlotte Islands, a group of the S. Pacific, between Solomon Islands and the New Hebrides; most of them are of volcanic origin.

Queensland, a British colony, on the E. coast of Australia, to the N. of New South Wales. It comprehends the districts of Moreton, Burnett and Wide Bay, Darling Downs, Maranoa, Leichhardt, and Port Curtis. Its capital is Brisbane. Pop. 99,299.

RAJPOOT'ANA, an extensive tract of Hindostan, between 23° 35' and 29° 57' N. lat., and 70° 5' and 77° 40' E. long. It embraces sixteen states, and takes its name from the prevailing population, the Rajoots. Area, 114,391 square miles. Pop. about 17,000,000.

Rangoon', the principal seaport of Pegu, situated on the eastern branch of the Irrawady, about 26 miles from the sea. It was stormed and taken by the British in 1852. Pop. 66,577. —16, 47 N. 96, 10 E.

Ras al Had, a cape forming the extreme eastern point of Arabia.—22, 83 N. 59, 56 E.

Red Sea or Ara'bian Gulf, a branch of the Indian Ocean, dividing Arabia from Africa. It extends above 1400 miles from the Straits of Babelmandeb to the Isthmus of Suez, at the W. head of the gulf, where it reaches to within 60 miles of the Mediterranean. Its greatest breadth is about 200 miles. The navigation is difficult and dangerous, by reason of numerous sand-banks and coral reefs.

Resht, a flourishing commercial town of Persia, the capital of the province of Ghilan, on the Caspian. Pop. 50,000.—37, 15 N. 49, 40 E.

Rhodes, an island near the Asiatic coast, belonging to Turkey. In ancient times, it was celebrated as a powerful naval and commercial state. Pop. 36,000.—36, 12 N. 28, 0 E.

Ri'adh, the capital of Nedjed, an extensive region in Arabia.

Rohilcund', a region of Hindostan, in the Presidency of Bengal, so named

from the Rohillas, an Afghan tribe, who emigrated thither in the 18th century.

Roman's Point, the southern extremity of the Malay Peninsula, and of the continent of Asia.—1, 30 N. 104, 20 E.

Ros'tak, a city of Oman, in Arabia, the residence of the Imaum of Muscat.—23, 40 N. 56, 45 E.

SAGHA'LIEN or Tarakai', a long and narrow island off the E. coast of Asia, separated from the mainland by the Gulf of Tartary, and from the island of Jesso on the S. by the Strait of La Perouse.

Sagha'lien Oo'la, a town of Asiatic Russia, on the Amoor. Pop. 20,000.—50, 2 N. 126, 56 E.

Sagha'lien River. See Amoor.

Sai'gon, a naval and commercial settlement in Lower Cochin-China, belonging to France. Pop. of capital, 180,000.

Saka'ria, the ancient *Sanga'rius*, a river of Asia Minor, which rises in the mountains S. of Angora, and falls into the Black Sea.

Sa'lem, a district of British India, Presidency of Madras, separated from Coimbatore by the Cauvery. Area, 8200 square miles. Pop. estimated at 1,195,000. The chief town, of the same name, has a population of 19,000.

Salsette', an island on the W. coast of Hindostan, N. of Bombay Island, with which it is connected by a causeway. It is 18 miles long by 13 broad, and is rich in Hindoo antiquities. Pop. 12,000.

Saluen' or Thaleain', a large river of the Eastern Peninsula, which rises in Tibet, flows E. through the Chinese province of Yun-nan and Birmah, and dividing the British province of Pegu on the W. from Siam and the British Tennasserim Provinces on the E., falls into the Gulf of Martaban.

Samarang', a fortified seaport on the N. coast of Java, with extensive commerce. Pop. 22,000.—6, 57 S. 110, 27 E.

Samarcand', a city of Bokhara, in Turkestan, situated in a fertile plain. It was the capital and favourite residence of Timur towards the close of the 14th century. Pop. 25,000.

Sa'mos, an island of Asiatic Turkey, separated from the coast of Asia Minor by a narrow strait. It still retains its ancient celebrity for beauty, fertility, and the excellence

of its fruits. Pop. 50,000.—87, 44 N. 26, 39 E.

Sa'na, the capital of Yemen, in Arabia, with a great trade in coffee. Pop. 40,000.—15, 22 N. 44, 30 E.

Sand'wich Islands, a group, 13 in number, in the N. Pacific, discovered by Captain Cook in 1778, extending from 18° 50' to 22° 20' N. lat., and from 154° to 160° W. long. They are fertile, and abound with the productions of tropical climes. In Owhyhee or Hawaii, the largest of the islands, are three stupendous volcanic mountains, Mowna Koa, Mowna Roa, and Kiraueah, the first rising to the height of 13,764 feet. In 1868 a fearful eruption of Mowna Roa desolated the island to a considerable extent. Through an unhappy misunderstanding with the natives of Owhyhee, Captain Cook here lost his life in 1779; but they are in general of a mild and friendly disposition, and many of them have been converted to Christianity. Honolulu, in Woahoo Island, is the capital of the group. Area estimated at 6032 square miles. Pop. about 69,800.

Sang-koi', a river of the Eastern Peninsula, rises in the Chinese province of Yun-nan, and, flowing S. W., falls into the Gulf of Tonquin.

San-poo', a river of Tibet, which rises near the source of the Sutlej, and, flowing eastward, joins the Brahmapootra.

Sar'abat, the ancient *Hermus*, a river of Asia Minor, falling into the Gulf of Smyrna.

Sar'awak, a country on the W. coast of the island of Borneo, of which the late Sir James Brooke was rajah for several years. Pop. of Sarawak, the capital, 15,000.

Sari', the capital of the province of Mazanderan, in Persia. Pop. 35,000.

Satta'ra, a city of W. Hindostan, Presidency of Bengal, 58 miles S. of Poonah.

Scanderoon' or Alexandret'ta, a town of Syria, the port of Aleppo, on a gulf of the Mediterranean.—86, 35 N. 36, 8 E.

Searpan'to, the ancient *Car'pathus*, an island in the Mediterranean, between Candia and Rhodes.

Sci'o, the ancient *Chios*, an island belonging to Turkey, near the Asiatic coast.

Scu'tari or Sku'tari, a city of Asiatic Turkey, on the *Bosporus*, opposite *Constantinople*. Pop. 60,000.

Sealkote', a town of British India, in the Punjab. Pop. 20,000.

Se-chu-en', a fertile province of China, bounded by mountains, and traversed by the Yang-tse-kiang. Pop. 21,435,678.

Seistan', a province of Afghanistan; with the exception of the banks of the Helmund, it consists of arid plains. Pop. 50,000.

Serampore', a town of Hindostan, on the Hoogly, 14 miles above Calcutta, long the chief station of the Baptist missionaries, who distinguished themselves as translators of the Scriptures into oriental languages. Pop. 12,537.

Ser'bal, Mount, a mountain of Arabia, N. W. of Mount Sinai, 6760 feet high.

Serinagar'. See Cashmere.

Serin'apatam', a strong town of Hindostan, the capital of Mysore under Hyder Ali and Tippoo Saib. It is situated on an island formed by the Caverry. It was stormed and taken by the British in 1799. Pop. 12,744.—12, 25 N. 76, 44 E.

Sert, a walled town of Turkish Armenia. Pop. 5000.

Sev'ero, Cape, or North-East Cape, the most northerly point of Asiatic Russia, and of the continent of Asia.—78, 0 N. 104, 0 E.

Shajehan'pore, a town of the North-West Provinces, British India. Pop. 62,785.

Sha'mo. See Gobi.

Shang-hae', a seaport of China, in the province of Kiang-su, about 10 miles from the mouth of the Woo-sung river; it is one of the ports which were opened to British commerce in 1842. Pop. from about 370,000 to 400,000.—31, 12 N. 121, 10 E.

Shan-si', a province of China, to the W. of Pe-tche-li. P. 14,004,210.

Shan-tung', a province of China, S. E. of Pe-tche-li, terminating in a peninsula stretching into the Yellow Sea. Pop. 28,958,764.

Shat el Ar'ab. See Euphrates.

Shen-si', an extensive and mountainous province of China, in the N. W., separated from Shan-si on the E. by the Hoang-ho. Pop. 10,207,256.

Shikarpore', a commercial town of Sind in Hindostan, on the W. of the Indus, the centre of a considerable trade. P. 30,000.—27, 58 N. 68, 30 E.

Shiraz', a city of Persia, the capital of Fars, beautifully situated

amid fine gardens. Here Hafiz, the Persian poet, was born about the year 1320. Pop. 40,000.—29, 37 N. 52, 44 E.

Shus'ter, the capital of Khuzistan, in Persia, on the Karoon. Pop. 8000.—32, 0 N. 49, 0 E.

Siam', a kingdom of the Eastern Peninsula. It consists chiefly of a fertile valley (between two ranges of mountains, watered by the Menam) and of the larger part of the Malay Peninsula. Area, 190,000 square miles. Pop. 6,000,000.

Siam' or Yu'thia, a city formerly the capital of Siam, in the Eastern Peninsula, situated on an island formed by the Menam.

Siam', Gulf of, a great bay of the Chinese Sea, to the E. of the Malay Peninsula.

Sibe'ria. See ASIATIC RUSSIA, p. 229.

Si'don or Sai'da, an ancient city of Phœnicia, on the coast of the Mediterranean, celebrated in sacred and profane history. P. 5000.—33, 34 N. 35, 21 E.

Sik'kim, a province of N. E. Hindostan, between Nepaul and Bootan; the British have introduced here the culture of the tea-plant. Pop. 61,766.

Sikokf. See Japan, p. 230.

Sim'la, a mountainous district of N. W. Hindostan, between the Sutlej and the Jumna, with a station resorted to by invalids of the British army. Pop. of district, 31,358.

Si'nal, a mountain of Arabia, 9300 feet in height, near the head of the Red Sea, in the peninsula between the Gulf of Suez and the Gulf of Akabah. Here the LAW was delivered to Moses.

Sinde, a province of Hindostan, on both sides of the Lower Indus, annexed to the British possessions in 1843. It extends from the Indian Ocean northward to the junction of the Chenab and Indus, in 28° 50' N. lat., and between 66° 37' and 71° 16' E. long. Length from N. to S. about 360 miles; average breadth, 200 miles. Area, 52,000 square miles. Pop. 1,087,762.

Si-ngan', a strongly fortified city of China, the capital of the province of Shen-si. Pop. about 300,000.

Singapore', an island belonging to Britain, at the S. extremity of the Malay Peninsula; it is about 27 miles in length, by 15, its greatest breadth, and, although so near the equator, is exceedingly healthy. Pop. 90,700.

Singapore', a seaport on the S.

coast of the above island; it is now the centre of extensive commerce. Pop. 26,000.—1, 17 N. 103, 51 E.

Sin-ling', a mountainous range in China, S. of Si-ngan, in the province of Shen-si.

Sino'pe, a seaport of Anatolia, on the Black Sea; it was bombarded and nearly destroyed by the Russians in 1853. Pop. 12,000.

Sir-Dari'a. See Jaxartes.

Sivas', the ancient *Sebas'ta*, a city of Asiatic Turkey, the capital of the pashalic of the same name, in Asia Minor. Pop. 25,000.

Smyr'na, an ancient city and seaport of Asia Minor, situated on a gulf of the same name in the Archipelago. It is a place of great trade, and claims the honour of being the birthplace of Homer. P. 150,000.—38, 26 N. 27, 9 E.

Soci'ety Islands, a group in the S. Pacific, of which the chief are Otaheite or Tahiti, Raiatea, and Eimeo. The soil is fertile, producing coconuts, the bread-fruit, plantains, etc. The labours of the British missionaries have brought most of the natives to the Christian faith. Pop. 18,000.

Sol'imān Mountains, a ridge of high mountains in the E. of Afghanistan, running N. and S.

Sol'omon Islands, an extensive group in the S. Pacific, between 5° and 12° S. lat., and 154° and 163° E. long. They are fertile and well wooded. They were first visited by Mendana in 1567.

Soo-choo', one of the finest cities of China, in the province of Kiang-su, situated on the Great Canal, near the Lake Tai. Pop. 500,000.

Sooloo' Islands, a chain of islands in the Eastern Archipelago, extending from the N. E. extremity of Borneo to Mindanao. The natives carry on an active commerce, but are inveterate pirates. Pop. 300,000.

Sou'gari, a river of Manchooria; rises near the Korean frontier, and joins the Amoor, after a course of 800 miles.

Sour, the ancient *Tyre*, a seaport of Syria, once a great commercial city. Pop. 3500.—33, 17 N. 35, 12 E.

Sourabay'a, a flourishing seaport on the N. E. coast of Java, with a strong fort and a fine naval arsenal. Pop. 130,000.

Souracar'ta, a Dutch residency in the island of Java, near its centre. Pop. 400,000.

**Southland**, a province of New Zealand, in South Island. Pop. 7943.

**Suma'tra**, a large island of the Indian Archipelago, separated from the Malay Peninsula by the Straits of Malacca, and from Java by the Straits of Sunda. It extends from N. W. to S. E., upwards of 1000 miles in length, with an average breadth of 165; and is divided by the equator into two nearly equal parts. Ranges of mountains run through the interior—Mount Ophir, in the central chain, rising to the height of 13,842 feet. Between these ranges are extensive and fertile plains, cleared of wood. The island produces pepper, rice, camphor, and several valuable woods, and contains mines of gold, copper, and iron. The Dutch are now masters of all the territory south of the equator. The chief native states are Acheen, Siak, the Batta country, and Menankabow. Pop. 2,500,000.

**Sun'da**, Straits of, an arm of the Indian Ocean, 90 miles long, separating Sumatra from Java.

**Sunderbunds**. See Ganges.

**Surat**, a city of Hindostan, on the Taptee, 20 miles from its mouth, with a large export trade. Pop. 95,000.—21, 12 N. 72, 48 E.

**Sut'lej**, a large river of Hindostan, the most eastern of the five rivers of the Punjab. It issues from the Lake Rhawan, in Tibet, 17,000 feet above the sea. Descending from the Himalaya it receives, 500 miles from its source, the Beas, and 400 miles below forms a junction with the Indus.

**Syd'ney**, the capital of the colony of New South Wales, in Australia, finely situated on the south shore of Port Jackson. It is a handsome town, and has an extensive trade, which is rapidly increasing. The harbour is one of the largest and safest in the world. Pop. 100,000.—33, 52 S. 151, 17 E.

**Syr'ia**, a province of Asiatic Turkey, famed in ancient history, lying along the E. coast of the Mediterranean. Pop. 2,750,000.

**TABARI'A**, the ancient *Tiberias*, a city of Palestine, situated on the W. shore of the Lake of Tiberias or Sea of Galilee. It was almost destroyed by an earthquake in 1837.

**Tabriz' or Tabreez'**, a city of Persia, the capital of Azerbijan, situated in the centre of a great plain, on the river *Aigi*, which runs into Lake

**Urumiah**. Pop. 80,000.—38, 4 N. 46, 24 E.

**Tad'mor**. See Palmyra.

**Tai'**, a fine lake in the Chinese province of Kiang-su.

**Taiwan'**, the capital of the island of Formosa, on the W. coast.—23, 8 N. 120, 32 E.

**Tai-yu'en**, the capital of the province of Shan-si, in China, a place of considerable trade, particularly in a kind of carpets resembling those of Turkey.—38, 0 N. 112, 50 E.

**Tanjore'**, a fortified city of the Carnatic, in S. Hindostan; it has a magnificent pagoda, and is a seat of Hindoo learning. Pop. 40,000.—10, 50 N. 79, 15 E.

**Tan'nah**, a town of British India, N. E. of Bombay. Pop. 12,000.

**Tan-sia-Shan'**, a range of mountains in the W. of the Chinese province of Ho-nan.

**Tap'tee**, a river of Hindostan, which rises in the province of Gundwana, and falls into the Gulf of Cambay, 20 miles below Surat.

**Tar'bagati**, a town in the Dzungenian district of Mongolia.

**Tar'sus or Tersoos'**, a city of Asia Minor, on the *Cydnus*, the ancient capital of *Cilicia*, and the birthplace of St Paul. Pop. 30,000.

**Tartary**, Gulf of, a part of the Sea of Japan, separating the island of Saghalien from the mainland of Asiatic Russia.

**Tash'kend**, a town of Asiatic Russia, on the Jaxartes or Sir-Daria. Pop. 40,000.

**Tas'mania**. See pp. 236, 237.

**Tassisu'don**, the capital of Bootan in N. E. Hindostan, in a fertile valley.—27, 56 N. 89, 40 E.

**Tat'ta**, the ancient *Pat'ala*, a city of W. Hindostan, in the province of Sind, situated near the W. bank of the Indus, about 65 miles from the sea. Pop. 20,000.—24, 44 N. 68, 0 E.

**Tau'rus**, a chain of lofty mountains in Asia Minor; the most elevated peak is 13,100 feet in height.

**Tchan'y**, a lake of W. Siberia, in the province of Kolyvan. Length 65 miles, breadth 40 miles.

**Tekeran' or Tehraun'**, the capital of Persia. It is situated in the province of Irak, at the foot of Mount Elburz, near the ruins of the ancient *Rhagæ*. P. 160,000.—35, 42 N. 51, 20 E.

**Tellicher'ry**, a fortified seaport of Hindostan, on the coast of Malabar. Pop. 20,000.

**Tenas'erim** Provinces, the name given to the British settlements of Martaban, Ye, Tavoy, and Tenasserim, in the Eastern Peninsula. They consist of a long and narrow slip of territory to the S. of Birmah, between 11° and 17° 40' N. lat., measuring in length from N. to S. 500 miles, and in breadth from 40 to 80 miles. Pop. 191,476.

**Ten'edos**, a small island off the W. coast of Asia Minor, near the entrance of the Dardanelles; it produces excellent wine. Pop. 7000.—39, 40 N. 26, 2 E.

**Ten'gri**, a lake in Tibet, 80 miles long and 40 broad.

**Ter'nate** Isle, one of the Moluccas, in the Indian Archipelago, with a town of the same name. It is famous for its nutmegs. Pop. 92,291.

**Te'shoo Lom'boo**, in Tibet, the seat of a lama, near the Bootan frontier. Pop. 3000.

**T'han-shan'**, or the Celestial Mountains, a range of lofty mountains in the W. of Mongolia.

**Tidor'**, an island of the Indian Archipelago, to the W. of Gilolo and S. of Ternate, belonging to the Dutch. It is densely wooded; its chief product is spices.

**Tien-tsin'**, a city and port of China, on the Peiho river, where, in June 1858, treaties of peace were concluded between Great Britain and France on one side, and the Emperor of China on the other. These treaties having been violated by the Chinese, Tien-tsin was seized by the Anglo-French army in August 1860; and two months afterwards, by the treaty of Peking, it was opened to European trade, along with other five ports and the lower part of the river Yang-tse-kiang. Pop. 200,000.

**Tiflis** or **Teflis**, the capital of Georgia, in Asiatic Russia, situated on the banks of the Kur: it is celebrated for its hot baths. Pop. 60,776.—41, 41 N. 44, 50 E.

**Ti'gris**, a large and rapid river of Asiatic Turkey, which issues from the mountains of Armenia to the N. of Diarbekir, and, after pursuing a course of 800 miles nearly parallel to the Euphrates, unites with that river above Bassorah. See Euphrates.

**Ti'mor**, a fine island of the Indian Archipelago, about 300 miles in length, and from 40 to 70 miles in breadth. Here both the Dutch and

the Portuguese have settlements Pop. 1,757,484.

**Ti'morlaut**, a mountainous island of the Indian Archipelago, E. of Timor. Its length is 90 miles.

**Tobolsk'**, the capital of W. Siberia, situated at the confluence of the Tobol and the Irtysh. Pop. 18,361.—58, 12 N. 68, 16 E.

**To'kat**, a city of Sivas, in Asiatic Turkey, on the banks of the Jekil-Irmak, the ancient *Iris*. Pop. 30,000.—40, 8 N. 36, 48 E.

**Tomsk**, a town of W. Siberia, situated on the Tom, above its junction with the Obi. Pop. 20,983.—56, 29 N. 85, 10 E.

**Ton'ga**. See Friendly Islands.

**Tong-ting'**, a large lake of China, in the province of Hoo-pe, 300 miles in circumference.

**Tonquin** (**Tonkeen'**), a kingdom of the Eastern Peninsula, comprehended in Cochinchina, or the Empire of Annam.

**Tor'es Strait**, on the N. extremity of Australia, which it separates from Papua or New Guinea.

**Tranquebar'**, a fortified seaport of S. Hindostan, on the Coromandel coast, situated at one of the mouths of the Cavery. P. 25,000.—11, 1 N. 79, 50 E.

**Trav'ancore**, a province of Hindostan, forming the south-western extremity of the peninsula from Cochinchina to Cape Comorin. Area, 4722 square miles. Pop. 1,011,824.

**Treb'izond**, the ancient *Trapezus*, a city of Turkish Armenia, on the coast of the Black Sea. Pop. 45,000.

**Trichinop'oly**, a city and fortress of S. Hindostan, in the Carnatic, situated on the S. bank of the Cavery. Pop. 30,000.

**Trincomalee'**, a seaport of Ceylon, with a strong fortress and an excellent harbour, situated on the N. E. coast.—8, 33 N. 81, 14 E.

**Trip'oli**, a seaport of Syria, on the Mediterranean, in a fertile plain. Pop. 15,500.—34, 26 N. 35, 50 E.

**Trivan'drum**, a city of S. Hindostan. Pop. 12,000.—8, 29 N. 76, 55 E.

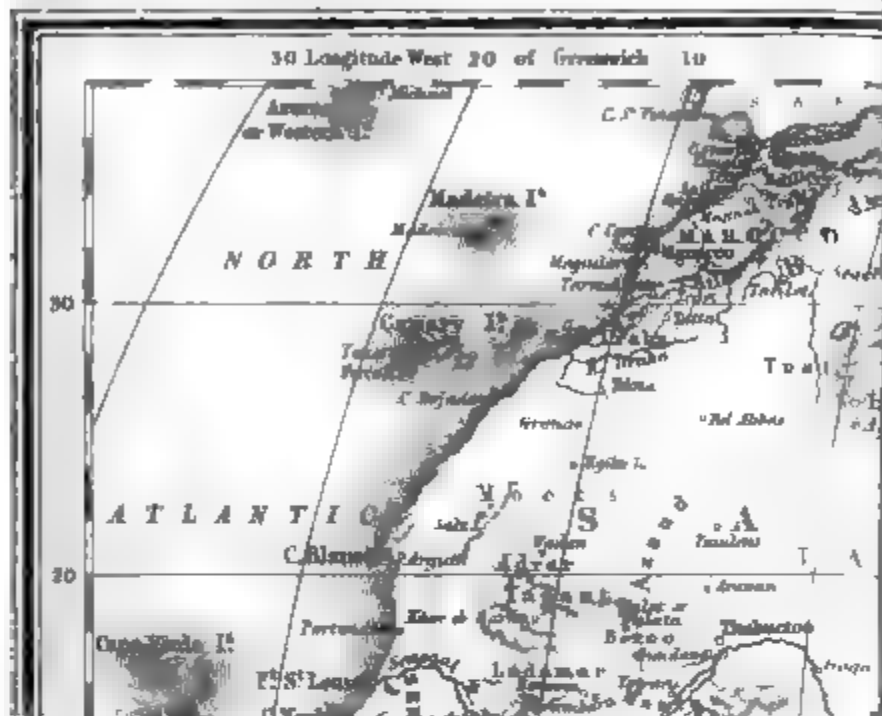
**Tse-tse-har'**, the most N. province of Manchouria, separated from Asiatic Russia by the Amoor river. The capital, of the same name, is on the Naun.

**Tsi-nan'**, a city of China, the capital of the province of Shan-tung.

**Tum'loong**, the capital of the native state of Sikkim, Hindostan, on the left bank of the Teesta.

...square miles.  
jectured to be 188 millions.

the population



**Turfan'**, a town of Eastern Turkestan, to the north of Lob Nor.—42, 40 N. 89, 45 E.

**Turkestan'**. See Remarks, p. 228.

**UMBAL'LAH**, a town of British India, in the Punjab. Pop. 21,962.

**Ural Mountains and River**. See Russia in Europe, p. 174.

**Uru'miah**, a lake of Persia, in the province of Azerbaijan, 85 miles long and 25 broad, remarkable for its extreme saltiness.

**VAN**, a salt lake of Turkish Armenia. Its greatest length is 70 miles, its breadth about 28 miles.

**Van**, a strongly fortified city on the above lake. Pop. 15,000.

**Van Diemen's Land**. See p. 236.

**Vellore'**, a town and strong fortress of the Carnatic, in S. Hindostan, situated on the Palar.

**Victo'ria** (formerly called *Australia Felix*, Port Phillip district, or *Phillipsland*), a British colony, comprising all the part of Australia S. of the river Murray, and E. of South Australia. Estimated area, 80,000 square miles. Pop. 659,887. See Australasia, p. 235.

**Victo'ria, South**, a large tract in the Antarctic Ocean, discovered by Sir James Ross in 1841. It extends from 72° to 78° S. lat., and is in 173° E. long. It contains an active volcano, Mount Erebus, 12,400 ft. high.

**Vindhya**, a range of mountains in Hindostan, about 5000 feet high, between 22° and 24° N. lat., and 74° and 80° E. long.

**Vizagapatam'**, a seaport of Hindostan, on the Coromandel coast.—17, 40 N. 83, 16 E.

**Voo-chang**, a city of China, the capital of Hoo-pe, on the Yang-tse-kiang. Pop. 400,000.

**WEL'LESLEY**, Province, a British settlement on the W. coast of the Malay Peninsula, opposite Penang or Prince of Wales' Island. Area, 140 square miles.

**Wellington**, a province of New Zealand, in the S. of North Island. Pop. 21,952. Wellington is the chief

town of the province, and the seat of government of the colony. P. 7460.

**XAN'THIUS**, an ancient city of Asia Minor.

**YAK'UTSK**, a town of E. Siberia, on the W. bank of the Lena, a great mart for furs. Pop. 5665.—62, 0 N. 129, 40 E.

**Yaloo'**, a river of the Chinese Empire, separating Manchooria from Corea.

**Yang-tse-kiang'**, the largest river of Asia, has its source in the mountains of Tibet, traverses all the great central provinces of China, and, after a course of 3200 miles, falls into the Pacific Ocean, about 100 miles below Nankin.

**Yar'kand**, a city of Eastern Turkestan. It stands on a river of the same name, in a fertile plain. Pop. 32,000.—38, 20 N. 76, 8 E.

**Yar'kand**, a river of Eastern Turkestan, which rises in the Mouz Tagh, and, running eastward, falls into Lake Lob Nor.

**Yel'low Sea**, an arm of the Pacific Ocean, between China and the peninsula of Corea, terminating in the Gulfs of Pe-tche-li and Leao-tong.

**Yem'bo**, a seaport of Arabia, on the Red Sea. Pop. 5000.

**Ye'men**, the *Arabia Felix* of antiquity, the S. W. province of Arabia, bordering upon the Red Sea.

**Yen'isei**, a large river of Siberia, which issues from the mountains to the S. W. of Lake Baikal, unites with the Angara above Yeniseisk, and flows into the Arctic Ocean.

**Yezd**, a city of Persia, in the S. W. of Khorassan, with a flourishing trade and silk manufactures. Pop. 50,000.

**Yun-nan'**, a mountainous province of China in the S. W. frontier. Pop. 5,561,320.

**Yun-nan'**, the capital of the Chinese province of the same name, situated on a large lake.

**ZAISANG'**, a lake of Mongolia, near the frontiers of Siberia, traversed by the Irtysh.

## AFRICA.

Is bounded N. by the Mediterranean; W. by the Atlantic; S. by the Southern Ocean; E. by the Indian Ocean, the Red Sea, and the Isthmus of Suez. The area is estimated at about 11,556,300 square miles. The population is conjectured to be 188 millions.



Divisions.	Chief Towns.
Northern Africa, or Barbary States, comprehending	
Morocco .....	Morocco, Fez.
Algeria .....	Algiers.
Tunis .....	Tunis.
Tripoli and Barca.....	Tripoli.
Western Africa, including Upper and Lower Guinea .....	{ Fort St Louis, Bathurst, Cape Coast Castle, Loanda.
Southern Africa .....	Cape Town.
Eastern Africa .....	Mozambique, Zanzibar.
North-Eastern Africa, including	
Egypt.....	Cairo, Alexandria.
Nubia .....	Khartoum.
Abyssinia .....	Gondar.
Central Africa .....	Sego, Timbuctoo, Fundah, Sackatoo, Kano, Kouka.

**ISLANDS.** — Madeiras, Canaries, Cape Verde Islands, Fernando Po, Prince's Island, St Thomas, Ascension, St Helena, Madagascar, Comoro Isles, Reunion (formerly Bourbon), Mauritius, Seychelles, Socotra.

**GULFS AND BAYS.** — Sidra, Cabes, Tunis, Guinea (in which are the Bight of Benin and the Bight of Biafra), Saldanha, Table, False, Algoa, Delagoa, and Sofala Bays, the Red Sea.

**STRAITS.** — Gibraltar, Babelmandeb, Channel of Mozambique.

**ISTHMUS.** — Suez.

**CAVES.** — Bon, Spartel, Cantin, Bojador, Blanco, Verde, Palmas, Formosa, Lopez, Negro, Good Hope, Agulhas, Corrientes, Delgado, Guardafui.

**MOUNTAINS.** — Atlas, Kong Mountains (Upper Guinea), Cameroons, Nieuwveld Mountains (Cape Colony), Mountains of Lupata, Kilimandjaro and Kenia (near the equator), the Abyssinian Mountains, Peak of Teneriffe (Canaries).

**RIVERS.** — The Nile, Niger or Quorra, Senegal, Gambia, Rio Grande, Agobay, Zaire or Congo, Coanza, Orange or Gariep, Zambezi.

**LAKES.** — Chad, Dembea, Victoria-Nyanza, Albert-Nyanza, Tanganyika (or Uniamesi, or Ujijii), Nyanyizi-Nyaasa, Shirwa, Ngami, Dilolo, Maravi or Kilwa.

## REMARKS.

Africa extends from  $37^{\circ} 20'$  N. to  $34^{\circ} 50'$  S. lat., and from  $17^{\circ} 32'$  W. to  $51^{\circ} 22'$  E. long. Its length, from the Cape of Good Hope to the Mediterranean, on the coast of Tunis, is about 5000 miles; its breadth, from Cape Verde to Cape Guardafui, about 4700. It forms a vast peninsula, separated from Europe by the Strait of Gibraltar and the Mediterranean, and from Asia by the Isthmus of Suez and the Red Sea.

In extent and population, Africa holds the third rank among the four great divisions of the globe; but is the lowest in political and moral importance. The knowledge of this continent possessed by the ancients was extremely limited, scarcely extending beyond the northern states; its interior is still imperfectly known, and was till lately a blank in the map of the world. The enterprise of modern travellers has overcome, in a great measure, the obstacles presented by a burning climate, extensive deserts, and the barbarism of the natives. A considerable extent of Central Africa has been found to be more fertile, better cultivated, and inhabited by milder races, than some of the countries previously known. Great part of the interior is still unexplored. Ethiopia, Egypt, and the northern states, attained in ancient times a high degree of civilisation; but they now present few traces of their former refinement.

Various distinct races people this continent. The inhabitants of Egypt, Nubia, and Abyssinia, appear to have come from Syria and Arabia. Carthage was founded by a Phœnician colony, and other regions of the north were peopled by Medes, Persians, and Armenians. In the 7th century of the Christian era, the Mohammedan Arabs subdued the north of Africa; and their descendants, under the name of Moors, constitute a great part of the existing population. Central and Western Africa, from Senegal to the Equator, are occupied by the Negroes, apparently a distinct and indigenous race. The east coast, northwards to the Equator; the west coast, from the Equator to Cape Negro; and part of the interior, are inhabited by the Caffres, a tribe resembling the Negroes, but with features less flat. The south-west coast, from Cape Negro to Cape Agulhas, and part of the interior, are peopled by the Hottentots or Bushmen, a distinct race, inferior to both Negroes and Caffres. Nearly all the races of Africa are in a state of barbarism; with a few exceptions, they are either Mohammedans or idolaters.

## EXERCISES.

How is Africa bounded? What is its extent in square miles? What is its population? What are its countries, its islands, gulfs and bays, straits, isthmus, capes, etc. Between what degrees of latitude and longitude is Africa situated? What are its length and breadth? What is its form? What rank does it hold among the great divisions of the globe? To what extent did the ancients possess a knowledge of this continent? What obstacles have modern travellers overcome? What is the nature of the territories they have explored? What was the condition of Ethiopia, Egypt, and the northern states, in ancient times? From what countries do the Egyptians, Ethiopians, Carthaginians, and other inhabitants of the north appear to have sprung? By what people are the central and western regions of Africa occupied? What part of the continent is inhabited by the Caffres? In what features do they resemble and differ from the Negroes? By what race is the south-west coast of Africa peopled? What is the general character of the natives?

## BARBARY.

States.	Chief Towns.
Morocco or Marocco :	
Morocco Proper .....	MOROCCO, Mogadore.
Fez .....	FEZ or Fas, Mequinez, Tetuan, Ceuta, Tangier, Sallee.
Sus .....	Taroudant, Tedsí.
Draha .....	Tatta.
Segelmessa .....	Segelmessa.
Tafilet .....	Tafilet.
Algeria .....	ALGIERS, Oran, Tremezen, Bona, Constantine.
Tunis .....	TUNIS, Kairwan, Cables.
Tripoli .....	TRIPOLI, Mesurata.
Barca .....	Derna, Bengazi.
Fezzan .....	Mourzouk, Sokna.

GULFS AND BAYS.—Sidra, Cables, Tunis.

CAPES.—Bon, Spartel, Cantin, Nun.

MOUNTAIN.—Atlas.

RIVERS.—Mahala or Mulwiah, Mejerdah.

LAKES.—Faroon or Lowdeah (*Tritonia Palus*), Shott Molrir.

## REMARKS.

Barbary extends from 23° 30' to 37° N. lat., and from 12° 30' W. to 25° E. long. Its length from E. to W. is about 2600 miles; its breadth from N. to S. varies from about 150 to 550 miles.

*Of Barbary, or, as some geographers have termed it, the*

region of Mount Atlas, that extensive chain of mountains is the most remarkable feature. The low land, between this range and the sea, varying from 30 to 150 miles in breadth, is watered by many streams from the hills, and is in general extremely fertile. Its agricultural products are nearly the same as those of Europe; its fruits are superior.

Of the domestic animals, the dromedary, the mule, and the ass are chiefly employed in labour. The Barbary horse is famed for its lightness and beauty of form. The fleeces of the sheep are in general coarse and hairy, except those of Morocco, some breeds of which produce very fine wool.

Among the wild animals are the lion (here remarkable for strength and ferocity), the panther, the hyena, the jackal, and the antelope or gazelle. Serpents, scorpions, and locusts, are scourges with which Barbary is peculiarly infested.

The ridges of Mount Atlas yield silver, copper, lead, and antimony. Iron, lead, and copper abound in Algeria. The plains are remarkable for the prevalence of saline substances, while the lakes are nearly as salt as the sea. Salt springs are more numerous than fresh, and there are hills composed entirely of salt. Nitre is found in many places. Hot springs and streams occur in various districts.

This part of Africa was distinguished in ancient history. Carthage, the first commercial state of antiquity, long disputed with Rome the empire of the world. After its fall, the northern provinces of Africa became the granary of Italy. Under the Saracen princes, Barbary, especially Fez, acquired unusual lustre. Its different states, long sunk in tyranny and oppression, have greatly declined in importance; their maritime strength, for ages exerted only in piratical excursions, has now been destroyed. The French took possession of the city of Algiers in 1830, and have since gradually extended their authority over the whole state, which they have divided into three provinces—Algiers, Constantine, and Oran. The government of the other Barbary States is despotic, and the religion Mohammedan.

#### EXERCISES.

What are the states and towns of Barbary? Name the chief rivers and lakes. Name the gulfs and bays. What is the most remarkable feature in Barbary? What is the general extent of the low land lying between Mount Atlas and the sea? What is the quality of the soil? What are its products? What domestic animals are chiefly employed in labour? For what is the Bar-

barry horse famed? Is there anything remarkable about the sheep of Barbary? What are the principal wild animals? With what is Barbary peculiarly infested? What metals does the Atlas range of mountains yield? What metals are found in Algeria? For what are the plains remarkable? Was Barbary distinguished in ancient history? What state disputed with Rome the empire of the world? What advantage did Italy afterwards derive from these African provinces? Under what princes did Barbary acquire unusual lustre? In what was the maritime strength of the Barbary States for ages exerted? What nation has colonized Algeria? What are the government and the religion of the other Barbary States?

## WESTERN AFRICA.

Divisions.	Chief Towns.
Senegambia, comprising the countries on the Senegal, the Gambia, and the Rio Grande.....	Bathurst, Fort St Louis.
Upper Guinea, containing	
Sierra Leone.....	Freetown.
Liberia and Grain Coast.....	Monrovia.
Ivory Coast.....	Lahou.
Gold Coast.....	Cape Coast Castle, El Mina.
Slave Coast.....	Whydah, Badagry.
Ashantee.....	Coomassie.
Dahomey.....	Abomey, Ardrah.
Benin.....	Benin, Wari.
Old Calabar.....	Bongo or Old Calabar.
Lower Guinea, containing	
Biafra.....	Biafra.
Loango.....	Loango.
Congo.....	St Salvador.
Angola.....	St Paul or Loanda.
Benguela.....	St Felipe de Benguela.
GULFS.—Guinea, Benin, Biafra.	
RIVERS. — Senegal, Gambia, Rio Grande, Niger or Quorra, Agobay, Zaire or Congo, Coanza.	

### REMARKS.

Senegambia is the name given by geographers to the line of coast between the parallels of 10° and 17° N., watered by the great rivers Senegal, Gambia, and Rio Grande. Its boundaries are ill defined, but it may be held as extending about 700 miles from N. to S., and about 500 miles from W. to E. From the southern border of the Sahara to the frontier of Guinea, the country is in general fertile, and traversed by large rivers, on the banks of which the vegetation is luxuriant; forests of

cocoa-trees, mangoes, palms, bananas, tamarinds, citrons, oranges, and pomegranates, affording evidence of the depth of the soil. The monkey bread-fruit tree, or *baobab*, is of such a size that its trunk is hollowed into chambers, within which are suspended the bodies of the dead. The shea or butter-tree, the mimosa, and the caoutchouc trees grow here. Maize, rice, yams, indigo, and cotton are cultivated.

The Mountains of Kong extend from the source of the Niger almost due east, until they approach that great river near its junction with the Chadda. The Cameroons Mountains rise from the Bay of Biafra to the height of 13,000 feet.

The gorilla, chimpanzee, elephant, hippopotamus, alligator, rhinoceros, lion, tiger, leopard, hyena, jackal, giraffe, zebra, antelope, deer, and monkeys, are found in these regions. The boa-constrictor and other serpents lurk amid the rank vegetation; venomous insects and clouds of locusts sometimes infest the air, and spread devastation far and wide. Birds of splendid plumage, such as the aigrette, and various species of parquets, swarm in the woods.

The British have settlements at Sierra Leone, on the Gambia, and on the Gold Coast, maintained chiefly with a view to the suppression of the slave-trade. Liberia, founded by the United States of America, became an independent republic in 1848. The French have settlements at St Louis on the Senegal, at Fort Goree near Cape Verde, and on the Gold Coast. The Dutch have settlements on the Guinea coast; and the Portuguese have settlements as well in Senegambia as along the coasts of Lower Guinea. Of the native kingdoms, the best known are Ashantee and Dahomey. The chief exports from Western Africa are gold, ivory, and palm-oil; the transport of slaves, though prohibited and severely punished, is still carried on to too great an extent.

#### EXERCISES.

What countries and towns does Western Africa comprehend? What are the principal rivers? What is the nature of the country between the Sahara and Guinea? What species of trees abound here? What great tree grows here? What plants are cultivated? Name the principal mountains. What wild animals are found in this country? By what reptiles and insects is it infested? What is remarkable about the birds? Mention the British settlements in Western Africa. Name those of the French, Dutch, and Portuguese. What settlement, founded by the United States of America, has become an independent republic? What are the best known native kingdoms? What are the chief exports from Western Africa? Is the slave-trade still carried on to any extent?

## SOUTHERN AFRICA.

Divisions.	Chief Towns.
<b>British Possessions :</b>	
Cape Colony.....	Cape Town, Graham's Town, King William's Town.
Natal.....	Pietermaritzburg, D'Urban.
Kaffraria or Kafferland.....	Butterworth, Bunting.
Basutu Land.....	
Orange River Free State.....	Bloemfontein.
Transvaal Republic.....	Potschefstrom.
Zulu Land.....	
Country of the Hottentots....	Ondonga, Bethany, Jerusalem.
Country of the Bechuanas....	Kuruman or New Lattakoo.
<b>RIVERS.</b> —Orange or Gariep, Buffalo, Olifant, Great Fish, Great Kei, Tugela.	
<b>BAYS.</b> —Walvisch, Santa Cruz, St Helena, Saldanha, Table, False, St Sebastian, Plettenberg, St Francis, Algoa, Port Natal, Delagoa.	
<b>CAPIES.</b> —Paternoster, Good Hope, Agulhas, Delgado.	
<b>MOUNTAINS.</b> —Nieuwveld Mountains, Table Mountain.	

## REMARKS.

The British possessions of Cape Colony and Natal, with their dependencies, occupy the southern extremity of the African continent, stretching about 900 miles in length from E. to W., with a breadth varying from about 100 to 400 miles. Their area is estimated at 350,000 square miles. The population is conjectured to be about 750,000, of whom less than a half are Europeans, the rest being Hottentots, Kaffers, and a mixed race. The territory round the Cape was colonized by the Dutch in 1650. It has been in the possession of Britain since 1806. Natal was erected into a colony in 1845, and British Kaffraria in 1860; but in 1864 the latter was annexed to Cape Colony.

Kaffraria or Kafferland stretches along the south-eastern coast, between Cape Colony on the west, and Natal upon the east. It is watered by numerous streams, is covered with wood, and intersected by savannas. It is inhabited by the Kaffers, a fierce pastoral race, but brave, frank, and independent.

The country of the Hottentots lies along the western coast, between the Orange River on the south, and Benguela on the north. The inhabitants are probably the most degraded of all the African tribes. They do not cultivate the soil, living

chiefly on the produce of their herds, or on the spoils of the chase. They have no towns, unless that name be given to the clusters of hovels or *kraals*, of which the chief are Jerusalem, Bethany, Wesleyvale, Damara, and Ondonga.

To the north of the British settlements lies the Country of the Bechuanas, a pastoral and agricultural race, less vigorous and intrepid than the Kaffers, but more industrious, having towns of considerable extent.

In the native countries, cattle-rearing is the chief branch of rural industry. Some parts of the territory of the Cape of Good Hope are very productive. The corn and fruits are excellent, and the vine is cultivated on a large scale; one vineyard at the foot of Table Mountain has long been celebrated for yielding the wine called Constantia. Gold and copper are found on the banks of the Orange River, and diamonds of considerable value are said to have been occasionally discovered. Among the wild animals are the lion, the hyena, the zebra, the elephant, the hippopotamus, the giraffe, the porcupine, and various kinds of serpents.

## EXERCISES.

Into what territories may Southern Africa be divided? Name the chief towns and rivers. What is the extent of the British possessions? What is the number of their inhabitants? By whom was the Cape of Good Hope first colonized? When did it finally pass into British hands? In what years were Natal and British Kaffraria erected into British colonies? Where is Kaffraria or Kafferland? What is the character of the Kaffers? Describe the situation of the Country of the Hottentots? What is their character? Where is the Country of the Bechuanas? In what respect do they differ from the Kaffers? What is the chief branch of native industry? Is the Cape Colony productive? Which of its productions are most noted? Mention some of the wild animals of South Africa.

## EASTERN AFRICA.

Divisions.	Chief Towns.
Soumali or Adel.....	Zeyla, Berbera.
Ajan.....	Bad.
Zanguebar.....	Zanzibar or Shanganny, Mombaz, Magadoxo, Quiloa.
Mozambique.....	Mozambique, Quillimane.
Sofala.....	Sofala, Manica, Zimbao, Sena.
RIVERS.—Zambesi or Leeambye, Mafuma, Sofala.	

## REMARKS.

Recent enterprise has enlarged our acquaintance with Eastern Africa, but it is still very imperfectly known. Adel, the



country of the Somaulis, between the Straits of Babelmandeb and Cape Guardafui, abounds in myrrh and frankincense. The coast of Ajan, viewed from the sea, appears a desolate mass of rocks and sand; but the interior is more fertile, and carries on a considerable trade in gold, ivory, and ambergris. Zanguebar is low, marshy, and unhealthy; its extensive forests are said to abound in elephants. The soil of Mozambique is particularly luxuriant; and gold is brought down the river Zambezi in considerable quantities. On its banks the Portuguese have forts at Sena and Tete. The interior is divided among a number of native chiefs; Zimbao being the most powerful state, while Manica is the richest district in metallic wealth. Sofala, formerly celebrated for its gold, and supposed by some to be the Ophir of Scripture, is now greatly decayed, but still exports considerable quantities of gold-dust. The Portuguese were formerly masters of nearly the whole of Eastern Africa; but they have been driven from the greater part of it by the natives and the Arabs, so that their dominion is now limited to the coast of Sofala and Mozambique. Most of the coast, from Cape Guardafui southward to Cape Delgado, including the islands of Pemba and Zanzibar, acknowledges the authority of the Sultan of Muscat.

#### EXERCISES.

What are the divisions of Eastern Africa? What are the chief towns and rivers? For what is Soumali or Adel famed? What is the appearance of the coast of Ajan when viewed from the sea? In what does it carry on a considerable trade? What are the peculiarities of Zanguebar? Of what quality is the soil of Mozambique? What constitutes a chief part of its commerce? What forts have the Portuguese on the Zambezi? What does Sofala export? What people were formerly masters of Eastern Africa? By whom have they been driven from the greater part of it? To whom does the sovereignty of most part of the coast belong?

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### EGYPT, NUBIA, AND ABYSSINIA.

#### Countries.

#### Chief Towns.

Egypt ..... CAIRO, Alexandria, Rosetta, Damietta, Suez, Siout, Girgeh, Assouan, Cosseir.

#### Nubia.

Dongola..... Marakah or New Dongola, Derr, Suakin.

Sennaar ..... KHARTOUM, Sennaar, Shendy.

Abyssinia ..... GONDAR, Ankobar, Axum, Adowa, Massouah.

**RIVERS.**—The Nile, formed by the junction of the Bahr

el Abiad or White River, and the Bahr el Azrek or Blue River; Atbara or Tacazze, an affluent of the Nile.

LAKES.—Dembea or Tzana, Mareotis.

#### REMARKS.

Egypt is bounded N. by the Mediterranean; W. by Barca and the Libyan Desert; S. by Nubia; E. by the Red Sea and the Isthmus of Suez. Its length from N. to S. is about 500 miles; the greatest breadth of the Delta of the Nile is about 150 miles; but the average breadth of the valley, above the Delta, is less than 10 miles. The area is estimated at 175,812 square miles. The population is 5,000,000.

This celebrated country consists of the long narrow valley of the Nile, bounded on both sides by mountains and barren deserts, and gradually widening as it approaches the sea. The mouths of the Nile give to the lower portion of the valley the form of the Greek letter  $\Delta$ , whence it is called the Delta. The country is divided into Lower Egypt, Bahari or the Delta, Middle Egypt or Vostani, and Upper Egypt or Said, the *Thebaid* of the ancients. The soil is extremely fertile, and the mode of cultivation simple. Wheat, barley, rice, maize, millet, durrah, and beans, are the principal grains; cotton, indigo, tobacco, sugar, opium, lint, and hemp, are reared in large quantities. The lotus, a species of water-lily, and the papyrus or paper-tree, are indigenous; and the sycamore-fig, the vine, the olive, the orange, the date-palm, the pistachio, the oriental plane, and the cypress, are common.

The climate of Egypt is distinguished by great heat and dryness, rain being of rare occurrence. The country would be a barren desert, were it not annually watered by the overflowing of the Nile, which diffuses fertility over its entire extent. These inundations, which are occasioned by the periodical rains in the tropical regions in which the river has its source, begin about the middle of June; they attain their greatest height in September, and gradually subside till the end of November.

Of the animals for which the country was noted in ancient times, the hippopotamus is now seen only in the Upper Nile; but the crocodile, the ichneumon-rat, and the stork-ibis, are still common. Asses, mules, dromedaries, and camels, are found in perfection, and there are some fine breeds of horses.

Egypt, celebrated in sacred history as the country in which the *Israelites* were held in bondage, had attained a high degree

of civilisation and importance at a very remote period of antiquity. Its pyramids, of which the largest is 763 feet square at its base and 460 feet in height, have for more than 3000 years withstood the influence of time. They are believed to have been raised for the sepulchres of the Egyptian kings. The country can show also the remains of temples, larger and more costly, but less elegant, than those of Greece or Rome.

Egypt is tributary to the Ottoman empire; but the famous pasha, Mohammed Ali, who died in 1849, rendered his dignity hereditary, and, though obliged to cede his conquests in Syria, Palestine, and Arabia, retained his sway over Nubia. Availing himself of the services of Europeans, he introduced great improvements, both in military discipline and in the various branches of industry. The valley of the Nile has in consequence become once more a highway of intercourse between India and Europe. The government is a military despotism; the religion is Mohammedan, but one-twelfth of the people are Copts, who profess Christianity.

NUBIA, the ancient *Ethiopia*, lies between Egypt and Abyssinia. Its area is estimated at about 250,000 square miles. Its population is conjectured to be about 400,000. It is almost entirely occupied by deserts, except on the banks of the Nile. The most fertile territories are Dongola on the Nile, and Sennaar on the Blue River or Abyssinian Nile. In Sennaar there are large forests of the acacia-tree. Nubia contains many excavated temples of great magnificence, particularly at Ebsamboul. The country is subject to the King of Egypt. The religion is partly Mohammedanism and partly idolatry.

ABYSSINIA or HABESH lies to the south of Nubia, and extends from N. to S. about 750 miles, with an average breadth of 500 miles. Its area is estimated at 245,000 square miles. Its population is supposed to be about 4,500,000. The general appearance of the country is that of an elevated table-land, intersected by ranges of rocky precipitous hills. Owing to its mountainous nature, the climate is more temperate than might be expected in such a latitude; but the heat in the lower valleys is intense. Many of these are fertile, producing various kinds of grain, the sycamore-fig, the tamarind, the date, and the coffee-tree. Besides the usual domestic animals, there are the elephant, rhinoceros, lion, panther, leopard, giraffe, hyena, gazelle, and *monkey*. The hippopotamus and the crocodile abound in the *lakes and rivers*. Abyssinia was long under the rule of one

sovereign, but it is now divided into a number of petty states, the chief of which are Tigrè in the north, and Shoa in the south; while a large portion has been conquered by a barbarous race called the Gallas, or Oroma. The prevailing religion is a corrupt form of Christianity. In consequence of a number of Englishmen and others (about sixty in all) being detained as prisoners in Abyssinia by Theodore, the self-styled Emperor, Britain was obliged, towards the close of 1867, to send an armed force, under Sir Robert Napier, to effect their release. After an arduous march of 400 miles into the interior, the object of the expedition was safely and successfully accomplished.

#### EXERCISES.

What are the chief countries or divisions of Egypt, Nubia, and Abyssinia? What towns do they contain? Name the principal rivers and lakes. What is the extent of Egypt in square miles? What is the amount of its population? What is its general appearance? Into what districts is it divided? What is the quality of the soil? What are the chief articles of cultivation? What plants are indigenous? What trees are common? What is remarkable about the climate? What prevents the country from being a barren waste? By what are the inundations of the Nile occasioned? When does the river begin to swell, attain its greatest height, and subside? What animal, formerly common in Egypt, has now become rare? What animals are still common? For what is Egypt celebrated in sacred history? How long have its pyramids stood? For what purpose were they built? To what empire is Egypt tributary? Over what country did the pasha Mohammed Ali establish his sway? How did he improve Egypt? What is the established religion?

Where is Nubia situated? What are its estimated area and population? What is its general appearance? In what respect do the kingdoms of Dongola and Sennaar differ from the rest of Nubia? Of what species of tree are there large forests in Sennaar? What remarkable temples are found in Nubia? To whom is the country subject? What is the religion?

Where is Abyssinia situated? What are its area and population? Name the chief states into which Abyssinia is now divided. By what people has a large portion of it been conquered? What is its general aspect? What is the nature of the climate? What are the principal plants and trees? What are the wild animals? With what animals do the lakes and rivers swarm? What form of religion do the people profess? Why did Britain send an expedition to Abyssinia? Was it successful?

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#### CENTRAL AFRICA.

THE interior of the African continent is still very imperfectly known. To the south of the Barbary States lies

Sahara or the Great Desert, and to the south of Sahara lies Nigritia or Soudan. The principal districts or kingdoms of Nigritia hitherto explored are,—

Countries.	Chief Towns.	Countries.	Chief Towns.
<i>Countries bordering on the Desert.</i>		<i>Countries E. and W. of Lake Chad.</i>	
Ludamar.....	Benowm.	Houssa.....	{ Sackatoo, Kano, Zaria or Zeg- Zeg.
Beroo.....	Walet.		
<i>Countries on the Senegal.</i>		Kanem.....	Maoo, Beri.
Bondou.....	Fatteconda.	Bornou.....	Kouka, Bornou.
Kasson.....	Kooniakary.	Mandara.....	Mora.
Kaarta.....	Kemmoo.	Adamawa.....	Yola.
<i>Countries on the Niger.</i>		Begharmi.....	Mesna.
Bambarra.....	Sego.	Dar - Zaleh, Wadi, or	{ Wara.
Jenneh.....	Jenneh.		
Timbuctoo.....	Timbuctoo.	Bergoo.....	
Yaouri.....	Yaouri.	Darfur.....	Cobbè.
Borgoo.....	Boussa, Kiama.	<i>Countries on the White Nile.</i>	
Nyffè.....	Rabba, Fundah.	Ferbit.....	Ferbit.
Yarriba.....	Eyeo.	Kordofan.....	Obeid.

## REMARKS.

Sahara or the Great Desert, the largest waste on the face of the earth, is a vast expanse of sand and gravel or barren rocks, interspersed with green spots or islands, called *Oases*, containing wells, and many of them thickly peopled. It stretches from the shores of the Atlantic to the confines of Egypt, nearly 3000 miles in length, varying in breadth from 1000 to 1200 miles, and having an area of about 2,500,000 square miles. On the west, the oases are few and small; in the centre and the east, they are more numerous and of greater extent. The principal are Ghadames, Fezzan, Tuat, Agades, Agably. The only vegetable productions of the Sahara are acacias, brambles, and other thorny shrubs. Ostriches and gazelles roam over these desolate regions, the borders of which are infested by lions, panthers, and serpents. The usual mode of traversing the Great Desert is by caravans or large bodies of camels and horses. These are often subjected to great distress, and sometimes perish from fatigue, want of water, and the simoom or blast of the desert.

Many parts of Central Africa are fertile and extremely populous, especially on the banks of the Niger or Quorra, the White Nile, the Congo or Zaire, the Zambesi, and Lakes Chad, Victoria and Albert-Nyanza, Tanganyika, Nyassa, and Shirwa. The *Niger*, which long baffled every attempt to explore its course,

has been ascertained to flow into the Gulf of Benin by numerous estuaries, after a winding course of about 2300 miles.

The countries on the Senegal and the upper part of the Niger are luxuriant, and densely peopled, chiefly by negroes, who seem here to have attained a higher civilisation than in any other part of the world. Timbuctoo is the most celebrated seat of the caravan-trade between Guinea, Senegambia, and Barbary. The countries on the Lower Niger, Yaouri, Boussa, Yarriba, and Nyffè are perhaps the most fruitful, industrious, and populous in Africa. Below Nyffè, in approaching the sea, the country becomes marshy and unhealthy, and is often inundated. The natives carry on an active commerce. About 300 miles above its mouth, the Niger receives the Chadda, a large river, on whose banks are several kingdoms. Here attempts, hitherto unsuccessful, have been made to form British settlements.

Houssa, an extensive region W. of Bornou, is extremely fertile, yielding abundance of grain, cotton, and indigo. Bornou, one of the most powerful kingdoms of Central Africa, lies immediately west and south of the lake Chad: Birnie, its former capital, which is said once to have contained 200,000 inhabitants, is now in ruins. The land is very fruitful, except where it is occupied by deserts of sand. Wadi, Bergoo, or Dar-Zaleh, is an extensive country between Begharmi and Darfur; it contains the lake of Fittrè. Darfur lies to the west of Sennaar, from which it is separated by Kordofan. It is parched and sterile in appearance, except during the rainy season, from June till September, when the fields are covered with luxuriant verdure. All the governments in Central Africa are despotic. The monarchs in general maintain little state, living on a very familiar footing with their subjects.

The vast expanse of Central Africa, lying to the south of Soudan or Nigritia and Abyssinia, was long wholly unknown to Europeans. It is still only partially and imperfectly explored; but, since 1852, our acquaintance with it has been greatly enlarged by Dr Livingstone, Captains Burton, Speke, and Grant, Mr Petherick, M. du Chaillu, and more recently by Sir Samuel Baker. It is now ascertained that Central Africa consists of a great table-land elevated 3533 feet above the sea-level. In the centre of this table-land, and stretching north and south across the equator, is a chain of lakes, of which *Tanganyika*, *Victoria-Nyanza*, and *Albert-Nyanza*, are the

largest. From the northern extremity of Victoria-Nyanza issues a river which, after a course of 150 miles, flows into Lake Albert-Nyanza, from whence the great western branch of the Nile, called the White Nile, has its origin. Hence this mighty river, rising in the region of the equator, and fed by its tropical rains, flows northwards over a space of forty degrees into the Mediterranean. The larger lakes are from 300 to 330 miles in length. On the southern side of this great table-land are a series of smaller lakes, Nyassa, Shirwa, and others. From Lake Nyassa flows the river Shire, a tributary of the great river Zambezi, which, rising in Lake Dilolo, falls into the Mozambique Channel, after a course of more than 1400 miles, through a fertile and well-peopled country, inhabited by the Bakalahari, Makololo, Matebele, and other tribes of the Bechuanas.

#### EXERCISES.

What is the state of our knowledge with regard to Central Africa? Where is Soudan or Nigritia situated? Into what countries may it be divided? What are their chief towns? What is the Sahara? What is its extent in length and breadth? What are its principal oases? How is this vast desert traversed? What calamities sometimes befall the caravans? What plants grow in the Sahara? What animals are found in it?

What is the general aspect of Central Africa? What are its four great rivers? What are its chief lakes? Into what gulf does the Niger flow? What is the length of its course? Describe the countries on the Senegal and the upper part of the Niger. What is the most celebrated seat of the caravan-trade? Describe the countries on the Lower Niger. What large river does the Niger receive? Have any attempts been made to form British settlements on its banks? What is the character of the people below Nyffè? Where is Houssa situated? What are the products of the country? Where is the kingdom of Bornou? Where are Bergoo and Darfur situated?

By whom have great additions been lately made to our knowledge of the regions of Central Africa lying to the south of Soudan and Abyssinia? What great lakes have been discovered near the equator? What river is believed to flow from them? Where is Lake Tanganyika? What are its length and breadth? Where are Lake Nyassa, and Lake Shirwa? What river issues from Lake Shirwa? From what lake does the Zambezi flow? What is the length of its course? By what tribes is the country which it waters peopled?

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#### AFRICAN ISLANDS.

1. *Madeira Islands*, principal island, *Madeira*. Chief town, *Funchal*.
2. *Canary Islands*, principal island, *Teneriffe*. Chief town, *Santa Cruz*.

3. Cape Verde Islands; principal island, St Jago; chief town, Porto Praya.
4. St Helena; chief town, James Town. Ascension; Tristan d'A-cunha.
5. Fernando Po, St Thomas, Princes, Annobon.
6. Madagascar; chief town, Tananarivo.
7. Mauritius; chief town, Port Louis. Reunion (formerly Bourbon); chief town, St Denis.
8. Comoro, Amirante, Seychelles, Socotra, Zanzibar.

## DESCRIPTIVE TABLE OF AFRICA.

**ABO'MEY**, the capital of Dahomey, situated about 80 miles from the Slave Coast. Pop. 30,000.—7° 35' N. lat., 2° 52' E. long.

**About'ir**, Bay of, on the coast of Egypt, celebrated for the victory which Lord Nelson here obtained over the French fleet in 1798.

**Abyssin'ia**. See Remarks, p. 280.

**Ac'cra**, a town and British settlement on the Gold Coast, W. Africa. Pop. 3000.

**Adow'a**, a town of Abyssinia, the largest in the state of Tigrè. Pop. 8000.—14, 12 N. 39, 4 E.

**Aga'des**, the capital of Air Asben, an oasis in the Sahara; it has manufactures of leather, and is one of the great marts of the caravan trade. Pop. 7000.

**Agul'has**, Cape, the most southerly point of the continent, giving name to the great bank which lies off the coast of Southern Africa.—34, 51 S. 20, 2 E.

**Albert-Nyanza**. See Victoria-Nyanza.

**Alexan'dria**, an ancient and celebrated city and seaport of Egypt, situated on a narrow peninsula between Lake *Mareotis* and the Mediterranean. It takes its name from Alexander the Great, by whom it was founded about the year 332 B.C. Near it are Pompey's Pillar, the obelisk called Cleopatra's Needle, and other interesting antiquities. Here Euclid, the mathematician, taught about 320 B.C.; and here the British, under Sir Ralph Abercromby, defeated the French, in 1801. Pop. 164,400.—31, 12 N. 29, 53 E.

**Alge'ria**, the ancient *Numi'dia*, one of the Barbary States, bounded on the N. by the Mediterranean, W. by Morocco, S. by the Great Desert of Sahara, and E. by Tunis. The Atlas chain of mountains runs through its whole length, which is

about 550 miles. The valleys, watered by streams, are extremely fertile, and the hills are covered with fruit-trees. The country has been in the possession of the French since 1830. Pop. 2,999,124.

**Algiers**, the capital of Algeria, a strongly fortified city, rising from the shore in the form of an amphitheatre. It was long a nest of pirates. A British squadron, under Lord Exmouth, in 1816, destroyed its fleet and dismantled its batteries. In 1830, the French captured the city, which they have since strongly fortified. P. 58,315.—36, 47 N. 3, 4 E.

**Algo'a**, a bay about 425 miles E. of the Cape of Good Hope; its shores are among the most fertile and beautiful districts in South Africa.

**Amha'ra**, a state of Abyssinia, to the W. of the Tacazze. It includes Gondar and Lake Dembea, and is crossed by ranges of lofty mountains.

**Ango'la**, a country of Lower Guinea, having Congo on the north, and Benguela on the south. Its chief traffic is in ivory. Pop. 600,000.

**Angor'nou**, a town of Bornou, about 16 miles from Kouka. Pop. 30,000. 12, 40 N. 14, 37 E.

**Anko'bar**, the capital of the state of Shoa, in Abyssinia, finely situated on two wooded hills. Pop. 12,000.

**Annobon'**, a pretty little island off the W. coast of Africa, belonging to Spain. Pop. 3000.

**Ar'drah**, a town of Dahomey, in Western Africa, about 25 miles inland. Pop. 20,000.

**Ascen'sion**, a small island in the South Atlantic, 820 miles N. W. of St Helena, frequented by ships as a place of refreshment, and on account of the great abundance of turtle and fish. It belongs to Great Britain. Its capital is Georgetown. Pop. 400.—7, 55 S. 14, 25 W.



**Ashantee'**, a kingdom of Western Africa, extending about 300 miles inland from the Gold Coast; it is inhabited by a warlike people, whose king has conquered some of the surrounding states. It is covered with forests, and abounds in gold. Pop. probably 4,500,000.

**Assou'an**, the ancient *Sye'ne*, the frontier-town of Egypt towards Nubia, situated on the eastern bank of the Nile, and surrounded by mountains of granite. Opposite is the island of Elephantine, famous for its rock-hewn temples. About three miles above it, the cataracts of the Nile begin.

**At'las**, a chain of lofty mountains, traversing the greater part of Barbary from N. E. to S. W. Mount Hentet is 15,000 feet above the sea.

**Ar'um**, a town of Abyssinia (of which it was once the capital), with a Christian church. In the principal square is a remarkable ancient obelisk, a single block of granite 60 feet high, sculptured with hieroglyphics. Pop. 4000.

**BABELMAN'DEB**. See p. 244.

**Bad'agry**, a town of Western Africa, on the Gulf of Benin. Pop. about 10,000.

**Bahr el Abiad**. See Nile.

**Bambar'ra**, a kingdom of Central Africa, on the banks of the Niger. It is fertile and well cultivated, and contains several large towns.

**Bambouk** (Bambook'), a mountainous country of Central Africa, between the Senegal and the Falemè; its rich gold-mines have sometimes obtained for it the name of the Peru of Africa. Its climate is hot and unhealthy.

**Bar'ca**, an extensive but sterile territory, forming the eastern division of Tripoli. The ancients had flourishing settlements here; and considerable remains of *Cyrene*, *Ptolemais*, etc., have recently been discovered. Pop. 1,000,000.

**Bassa'**, a seaport of Upper Guinea, on the Grain Coast.

**Ba'thurst**, a seaport on the island of St Mary, at the mouth of the Gambia, the capital of the British colony of Senegambia. Pop. 3000.

**Beghar'mi**, a country of Central Africa, to the S. E. of Lake Chad, and to the E. of Bornou. P. 1,500,000.

**Benga'zi**, the ancient *Bereni'ce*, a seaport of Barca, on the Gulf of Sidra. Pop. 5000.—32, 6 N. 20, 2 E.

**Bengue'la**, an extensive territory of Western Africa, having Angola on the north, and the Country of the Hottentots on the south. Pop. 1,890,000.

**Bengue'la**, San Felipe' de, a seaport, the capital of Benguela. Pop. 3000.—12, 33 S. 13, 25 E.

**Benin'**, a kingdom of Upper Guinea, extending along the coast of the Bight of Benin. It is intersected by a number of estuaries, now ascertained to be branches of the Niger, by which that great river discharges its waters into the Atlantic.

**Benin'**, the capital of the above kingdom, situated inland, on an open plain. Here Belzoni, the traveller, died in 1823. Pop. 15,000.

**Be'nowm**, a town of Central Africa, the capital of Ludamar; here Mungo Park was detained some time in captivity.

**Berbe'ra**, a seaport between Cape Guardafui and the entrance of the Red Sea; it is a place of considerable trade.

**Ber'goo**, Wadi, or Dar Zal'eh. See Remarks, p. 283.

**Beroo'**, a country E. of Ludamar, and N. of Bambarra, on the borders of the Great Desert.

**Bia'ra**, a country of Upper Guinea, bordering on the Cameroons River.

**Bir'nie** or **Bor'nou**, Old. See Remarks, p. 283.

**Bissa'o**, a seaport and island at the mouth of the Jeba, in Senegambia; it belongs to the Portuguese. Pop. 8000.

**Bizer'ta**, a seaport of Tunis, at the head of a deep bay. Pop. 10,000.—37, 16 N. 9, 49 E.

**Blan'co**, Cape, the most westerly point of the Sahara or Great Desert.—20, 46 N. 16, 58 W.

**Bojador** (Boyador') Cape, a promontory of Western Africa, S. of Morocco, stretching into the Atlantic.—26, 7 N. 14, 29 W.

**Bon**, a celebrated cape N. E. of Tunis, opposite Sicily.—37, 4 N. 10, 53 E.

**Bo'na**, a seaport of Algeria, near the ruins of the ancient *Hip'po Re'gius*. Pop. 15,272.—36, 54 N. 7, 46 E.

**Bon'dou**, a kingdom of Central Africa, between the Senegal and the Gambia. Its population is said to be 1,500,000. The king's residence is at Fatteconda.

**Bon'ny**, a town of Upper Guinea,

at the mouth of one of the branches of the Niger; was destroyed by fire on the 8th April 1869; it had a great traffic in palm-oil.

Bor'goo, a mountainous country of Central Africa, W. of the Niger, divided into several small states, of which the principal are Niki, Boussa, and Kiama.

Bor'nou. See Remarks, p. 283.

Bor'nou or Bir'nie, New, a city of the kingdom of Bornou, and the residence of the sultan. Pop. 10,000.

Bourbon'. See Reunion, p. 292.

Bous'sa, a town of Central Africa, the capital of a country of the same name on the Niger; here Mungo Park was killed by the natives in 1805. Pop. 16,000.

Brass River, called by the Portuguese Nun, one of the principal branches of the Niger; it separates into two channels before reaching the sea.

CA'BES, a gulf of the Mediterranean, the *Syr'tis Mi'nor* of antiquity, indenting the coast of Tunis.

Ca'bes, a seaport of Tunis, on the above gulf. Pop. 20,000.—33, 50 N. 10, 10 E.

Caffra'ria. See Kafiraria.

Ca'ro, the modern capital of Egypt, and the largest city in Africa, is situated near the eastern bank of the Nile. It is in general ill built, but contains many elegant mosques. It was founded by the Arabs about A.D. 970. Pop. including suburbs, 265,000.—30, 2 N. 31, 15 E.

Cal'abar, Old, a river of Upper Guinea, which falls into the Bight of Biafra; it is navigable for large vessels.

Cameroons', a river of Upper Guinea, which falls into the Gulf of Biafra, opposite the island of Fernando Po. The Cameroons Mountain, close to the shore, rises to the height of 13,129 feet.

Cana'ries, formerly called the Fortunate Islands, a beautiful group in the Atlantic, off the N. W. coast of Africa. They belong to Spain. They are seven in number, Teneriffe, Grand Canary, and Palma, being the principal. In the interior there are picturesque and lofty mountains of volcanic origin; the Peak of Teneriffe rises 12,198 feet above the sea, and is seen by mariners at the distance of 140 miles. The islands are in general fertile, and have a fine

climate; their chief production is wine. Pop. 234,046.

Can'tin, Cape, a promontory on the coast of Morocco.—32, 32 N. 9, 14 W.

Cape Coast Castle, the capital of the British settlements on the Gold Coast, between the Assine on the W. and the Volta on the E. It is built on a rock, and strongly fortified. It was first occupied by the British in 1664. Pop. 10,000.—5, 6 N. 1, 13 W.

Cape Colony. See Remarks, page 276.

Cape Town, the capital of Cape Colony, and of the British possessions in Southern Africa. It is situated on Table Bay, and is strongly fortified. It was founded by the Dutch in 1650. Pop. 25,199.—33, 56 S. 18, 28 E.

Ceu'ta, a strong seaport in Morocco, on the Straits of Gibraltar; it has belonged to Spain since 1640. Pop. 8200.—35, 54 N. 5, 16 W.

Chad or Tchad, a large lake or inland sea of Central Africa, about 150 miles long and 125 broad; it has numerous islands, covered with rich pastures and well peopled.

Chad'da or Benue, a large river of Central Africa, which falls into the Niger.

Che'licut, a town of Abyssinia, in the state of Tigre. Pop. 8000.

Coan'za, a river of Lower Guinea, which falls into the Atlantic between Angola and Benguela.

Cob'bè, a city of Central Africa, the capital of Darfur. Pop. 6000.

Com'oro Islands, a group of volcanic isles, lying between Madagascar and the continent. They are mountainous, and abound in cattle and tropical fruits. One of the group, called Mayotta, was ceded to France in 1841. Pop. 80,000.

Con'go, a country of Lower Guinea, separated from Loango on the N. by the Zaire or Congo, and bounded on the S. by Angola. The soil on the banks of the river is fertile; the climate is intensely hot.

Con'go or Zaire. See Zaire.

Constantine', the ancient *Cir'ta*, the capital of the eastern province of Algeria, situated on a steep rock, and strongly fortified. It has many fine remains of Roman architecture. It was taken by the French in 1847, and has remained in their possession ever since. In its neighbourhood

are the ruins of Hippo, of which St Augustin was bishop from A. D. 896 till his death in A. D. 430. Pop. 34,200.—66, 22 N. 6, 36 E.

Coomas'sie, the capital of the kingdom of Ashantee, situated on a rocky hill. P. 18,000.—6, 34 N. 2, 12 W.

Corrien'tes, Cape, on the eastern coast.—24, 15 S. 85, 31 E.

Coss'eir, a seaport of Egypt, on the Red Sea. Pop. 2000.—26, 8 N. 34, 15 E.

Christiansborg, and Creveceur, two forts on the Gold Coast, which were ceded by Denmark to Great Britain in 1850.

DAHO'MEY, a kingdom of Western Africa, N. of the Slave Coast. The country, so far as known to Europeans, is very fertile. The government is a sanguinary despotism, and the people are fierce and barbarous. Pop. 150,000.

Damiet'ta, a seaport of Egypt, near the mouth of the eastern branch of the Nile. Pop. 37,000.—31, 25 N. 31, 49 E.

Dar'fur. See CENTRAL AFRICA, p. 288.

De'bo, a lake of Central Africa, S. W. of Timbuctoo, on the Joliba.

Delago'a Bay, on the S. E. coast, about midway between Mozambique and the Cape of Good Hope. It is much frequented by the South Sea whalers.

Delga'do, Cape, the ancient *Pra'sum*, a promontory on the Mozambique coast.—10, 41 S. 40, 40 E.

Del'ta, or Lower Egypt. See Remarks, p. 279.

Dem'bea or Tza'na, Lake of, in Abyssinia, drained by the Bahr el Azrek or Blue River. It is about 60 miles long, and 40 broad.

Der'na, a seaport, the capital of Barca, surrounded by gardens, and watered by refreshing rivulets. Pop. 4500.—32, 42 N. 22, 36 E.

Derr, a town, the capital of Lower Nubia, on the eastern bank of the Nile. Its houses, or huts, are built of mud. Pop. 3000.

Dilo'lo, a lake in Central Africa, from which, it is supposed, the two great rivers, the Zaire or Congo, and the Zambezi, take their rise.—11, 30 S. 23, 30 E.

Don'ga, a mountainous country S. of Darfur, in which, it would seem, numerous streams unite in forming the *Bahr el Abiad*, or principal branch of the Nile.

Dongo'la. See Remarks, p. 260.

Dongo'la, New, or Mara'kah, the capital of Dongola, a central province of Nubia, situated on the Nile. Pop. 6000.

Draha, or Da'rah, a country S. of Mount Atlas, which separates it from Morocco, to which it is subject. Its chief product is dates.

E'BOE, a town on the Niger, about 80 miles from the ocean, with a great trade in slaves and palm-oil. Pop. 6000.

Eb'samboul, in Nubia, celebrated for its magnificent temples and monuments cut out of the solid rock.

Eg'ga, a large trading town on the Niger, the most southerly in the kingdom of Nyffè.

E'gypt. See Remarks, p. 279.

El Ar'ish, a frontier town of Egypt, towards Syria, on the shore of the Mediterranean.

El Mi'na, a seaport of Upper Guinea, the capital of the Dutch possessions on the Gold Coast; it is strongly fortified. Pop. 10,000.

Eye'o or Katun'ga, a large city of Central Africa, the capital of Yarriba; it is said to be 15 miles in circumference, but with many fields and open spaces interjected. P. 20,000.

FALSE BAY, a large inlet on the south coast, immediately to the E. of the Cape of Good Hope.

Fernan'do Po, a mountainous island off the coast of Guinea, opposite the mouth of the Cameroons River. Clarence Peak, its highest point, is about 10,000 feet above the sea-level. It is fertile and beautiful, but very unhealthy. It belongs to Spain. P. 25,000.

Fer'ro, the most westerly of the Canary Islands; it was formerly used by geographers as the first meridian. Pop. 5000.—27, 45 N. 18, 7 W.

Fez, a city of Northern Africa, once famous as a seat of learning and the capital of a Moorish kingdom, to which it gave name,—now united to Morocco. It is pleasantly situated in a valley, surrounded by hills covered with orchards and orange-groves; it has considerable manufactures of woollens, carpets, and morocco-leather. Pop. 80,000.—34, 6 N. 5, 1 W.

Fez'zan, a country to the S. of Tripoli, forming an oasis or island in the Great Desert. The heat is intense, and the soil is a light sand. It is the great emporium of the car-

avan-trade between Tripoli and the interior of Africa. Pop. 26,000.

Fit'trè, a lake of Central Africa, said to be four days' journey in circumference, and to be double that extent in the rainy season.

Formo'sa, Cape, the E. boundary of the Gulf of Benin.—4, 15 N. 6, 0 E.

Fon'la's, an amiable negro race, widely diffused through W. Africa.

Free'town, the capital of the British colony of Sierra Leone, situated on a bay at the mouth of the Roukelle. Pop. 18,000.

Fun'chal, the capital of Madeira, on the S. E. side of the island. Pop. 18,161.—32, 51 N. 16, 54 W.

Fun'dah, a large town of Central Africa, on a tributary of the Chadda. Pop. 60,000.

GAM'BIA, a large river of Western Africa; it rises among the mountains of Kong, and, after a course of about 1000 miles, falls into the Atlantic, south of Cape Verde. Bathurst, the capital of the British colony of Senegambia, is situated on an island at its mouth. Pop. 3000.

Gibral'tar, Straits of, between Europe and Africa, uniting the Atlantic and the Mediterranean. The breadth of the channel, where it is narrowest, is 12 miles.

Gold Coast, a country of Upper Guinea, having the Ivory Coast on the west, and the Slave Coast on the east. Here the British have several settlements.

Gon'dar, the capital of Amhara, the central state of Abyssinia. Pop. 50,000.—12, 35 N. 37, 32 E.

Good Hope, Cape of, a celebrated promontory of Southern Africa, discovered by the Portuguese navigator Diaz, in 1487, and called by him the "Cape of Storms;" it was doubled by Vasco de Gama in 1497.—34, 22 S. 18, 29 E. The British settlements of the Cape Colony occupy the S. extremity of the continent, bounded by the Orange River on the north, and the Great Kei River on the east. Area, 104,921 square miles. Pop. 267,096.

Goree', a small rocky island on the west coast, to the S. of Cape Verde, belonging to the French; it has a town of the same name, strongly fortified. Pop. 3500.—14, 39 N. 17, 24 W.

Graham Town, a town of Cape Colony, to the W. of the Great Fish River. Pop. 5432.

Guardafui (Gardafwee'), Cape, a bold headland, the most easterly point of Africa, about 600 miles E. of the Straits of Babelmandeb.

Guin'ea, the name given to the countries on the western coast, along the shores of the great gulf of the same name, from Cape Verga, 10, 20 N., to Cape Negro, 15, 41 S.

HELE'NA, St, an island of volcanic origin, in the South Atlantic, nearly 1200 miles from Cape Negro, the nearest point of the African coast. It belongs to Great Britain. Diana's Peak, in its centre, is 2693 feet high. The circumference of the island is about 28 miles, presenting an immense wall of perpendicular rock, from 600 to 1200 feet high. St Helena was the abode of Napoleon Bonaparte from 1815 till his death in 1821. Its capital is James Town. Area, 47 square miles. Pop. 5500.—15, 55 S. 5, 44 W.

Hous'sa. See Remarks, p. 283.

JACO'BA, a flourishing city of Central Africa, on the Chadda.

Jen'neh, the capital of a state of the same name in Central Africa, on an island formed by the Joliba or Niger. Pop. 9000.

Johan'na, the central and most frequented of the Comoro Islands, Mozambique Channel. It is well wooded and very picturesque. Pop. estimated at 20,000.

KAA'R'TA, a kingdom of Central Africa, W. of Bambarra.

Kaffra'ria, British, a district of the Cape Colony. It is separated by the Great Kei River from native Kaffra-ria or Kafferland.

Kair'wan, a city of Tunis, once a Saracen capital; it has a grand mosque, supported by 500 granite columns. Pop. 50,000.

Ka'no, a city of Houssa, one of the chief seats of the caravan-trade. Pop. 40,000.—12, 5 N. 9, 20 E.

Ke'nia, the name given by some geographers to a lofty mountain near the equator.—36, 0 E.

Khartoum', the modern capital of Nubia, situated at the junction of the Blue and the White Nile. Pop. 25,000.—15, 30 N. 32, 33 E.

Kilimand'jaro, the name given by some geographers to a lofty mountain S. of Kenia.

Kir'ree, a large trading town on the Niger, near which the Delta of that river begins.

Kong, a kingdom of Central Af-

rica, between Bambarra and Ashantee, traversed by lofty mountains.

Kordofan', a country between Darfur and Sennaar, subject to the King of Egypt.

Kou'ka, a city of Central Africa, the capital of Bornou, near Lake Chad.

Kuru'man or New Lat'takoo, a town of S. Africa, capital of the Bechuanas.

LA'GOS, a settlement and town on an inlet of the Gulf of Benin; it was ceded to Britain in 1861. Pop. 5000.

Lat'takoo, a town of S. Africa, formerly the capital of the Bechuanas. Pop. 6000.—27, 10 S. 24, 30 E.

Libe'ria, an independent negro republic, on the coast of Upper Guinea, founded, in 1848, for free negroes from the United States of America. Its capital is Monrovia. Pop. 500,000.

Linyan'ti, a town of Central Africa, the capital of a powerful tribe, called the Makololo, in lat. 18, 17 S., and long. 23, 50 E. Pop. 7000.

Loan'da, or St Paul de Loanda, a fortified seaport of Lower Guinea, the capital of Angola and of the Portuguese settlements in Western Africa. Pop. 12,000.—9, 0 S. 13, 18 E.

Loan'go, a large town of Lower Guinea, the capital of a kingdom to which it gives name. Pop. 20,000.—4, 39 S. 12, 17 E.

Log'gun, a populous district of Bornou, S. of Lake Chad.

Lo'pez, Cape, a peninsula on the coast of Lower Guinea.—0, 36 S. 8, 35 E.

Lou'is, Fort St, a town of W. Africa, the capital of the French settlements in Senegambia: it is situated on an island at the mouth of the Senegal. Pop. 15,000.

Lud'amar, a country of Central Africa, N. of Bambarra.

Lupa'ta, a chain of mountains in E. Africa, on the west of Mozambique and Zanguebar.

MADAGAS'CAR, the largest island of Africa, is situated in the Indian Ocean, being separated from the continent by the Mozambique Channel. Its length is 900 miles; its greatest breadth, 350 miles. The interior is traversed by a chain of lofty mountains, covered with valuable trees; the fertile plains along the coast are watered by numerous streams. In 1816, successful efforts were made by British missionaries

to introduce Christianity into Madagascar. King Radama I. greatly encouraged these efforts; but on his death in 1828, his successor, Queen Ranavaloa Manjaka, reversed all his measures for promoting the improvement of the people, restored the old idolatries and cruel superstitions, massacred the native Christians, and expelled the Europeans. She died in 1861, and since then the inhabitants have enjoyed freedom to profess the Christian religion, and have made considerable advancement in civilisation. The area of the island is estimated at 232,000 square miles; its population at 5,000,000. The capital is Tananarivo, in the centre of the island, with a pop. of 80,000.—18, 56 S. 46, 57 E.

Made'ra, a beautiful island off the N. W. coast, 35 miles in length by 12 in breadth. It consists of a mass of basalt, Pico Ruivo rising to the height of 5993 feet. It is famous for its wine and for its salubrious climate. It belongs to Portugal. Pop. 104,420.—32, 37 N. 16, 54 W.

Magadox'o, the capital of a state of the same name, on the eastern coast. It is subject to the Sultan of Muscat. Pop. 4000.

Mampoor' or Ngam'i, a lake in the interior of Africa, 900 miles north from Cape Town: it is about 60 miles long, and 12 or 14 broad. Lat. 21, 0 S., long. 22, 30 E. From its eastern side issues the river Zouga.

Manda'ra, a kingdom of Central Africa, to the S. of Bornou, bordering on a chain of lofty mountains.

Mandin'goes, a mild and hospitable race of negroes, widely diffused over Senegambia and the interior of W. Africa.

Man'ica, a town in the interior of E. Africa, on the Sofala, the principal mart on that coast for gold and ivory.

Mara'vi, Nyas'si, or Kil'wa, a lake in the interior of E. Africa, said to be 300 miles long and 30 broad.

Mareo'tis, a lake of Egypt, to the south of Alexandria; it is 50 miles long and 20 broad.

Mas'souah, a seaport of Abyssinia, on an island in the Red Sea, with a considerable trade. Pop. 4000.

Mauri'tius, an island in the Indian Ocean, 480 miles E. of Madagascar. It is 36 miles in length, 20 in breadth, and 120 in circumference. It produces sugar, coffee, cotton, indigo,

and ebony. It was discovered by the Dutch in 1596, who named it after their Prince Maurice. From 1713 till 1810, it belonged to the French, by whom it was called the *Isle of France*. Since 1810 it has belonged to Britain. Area, 700 square miles. Pop. 313,462.

Mejer'dah, the *Ba'gralas* of the ancients, a river which flows into the Mediterranean, to the north of Tunis.

Melin'da, once a flourishing city on the eastern coast, but destroyed by the Gallas.

Meq'ueinez, a city of Morocco, situated in a fine plain, watered by numerous streams. It is a favourite residence of the emperor. P. 60,000.—33, 58 N. 5, 32 W.

Mera'wè, a town of Dongola, in Nubia, on the Nile.—18, 17 N. 31, 50 E.

Mesura'do, a rapid river of W. Africa; it rises in the mountains of Kong, and falls into the Atlantic at Cape Mesurado.

Mesura'ta, a town of Tripoli, near the cape of the same name.—32, 25 N. 15, 10 E.

Mog'adore, a fortified seaport of Morocco, on the Atlantic. Its neighbourhood is a barren waste, but the town has a fine appearance from the sea. P. 17,000.—31, 30 N. 9, 25 W.

Mon'baz, a seaport on the coast of Zanguebar, situated on an island, with a good harbour and a considerable trade. P. 6000.—4, 4 S. 39, 43 E.

Monastir, a seaport of Tunis, with a considerable trade. Pop. 12,000.

Monro'via. See Liberia.

Moroc'co or Maroc'co, the ancient *Maureta'nia*, an empire in the N. W. of Africa, and the most important of the Barbary States. Mount Atlas traverses its whole length. The region between the Atlas and the Sahara, comprehending Darah, Tafilet, and Segelmessa, yields the finest dates. The government is a rigid despotism, the will of the emperor being the only law, and the lives and properties of his subjects being at his sole disposal. Area, 260,000 square miles. Pop. 2,750,000.

Moroc'co, the capital of the above empire, situated on the N. of Mount Atlas, in a vast plain covered with date and olive trees. Pop. 80,000.—81, 37 N. 7, 36 W.

Mossame'des, a Portuguese colony, 170 miles S. of Benguela, with a fine town and harbour. Pop. 4,400,000.

Mourzouk (*Moorzook*), the capital

of Fezzan, and a chief seat of the trade with Central Africa. Pop. about 2000.

Mozambique, a fortified seaport of Eastern Africa, situated on an island of the same name. It is the capital of the Portuguese settlements on that coast. Pop. of island, 6000.—15, 2 S. 40, 48 E.

Mozambique Channel, a strait, or more properly an arm, of the Indian Ocean, between Madagascar and the continent; it is about 260 miles broad.

NATAL, a British colony, founded in 1845, on the S. E. coast, to the north-east of Cape Colony and Kaffraria, between 27, 40 and 30, 40 S. lat., and 29, 0 and 31, 10 E. long. The climate is healthy and the soil fertile. Cotton and indigo grow wild; and sugar, coffee, wheat, and tobacco are cultivated. Coal, iron, and building stone abound. Pietermaritzburg, the capital, is 50 miles inland from Port Natal, which is near the coast-line. Area, 18,000 square miles. Pop. 156,165. It now forms part of Cape Colony.

Ne'gro, Cape, a promontory of Benguela, in Lower Guinea.—15, 40 S. 12, 8 E.

Nga'mi, a lake in the basin of the Zambezi, 21, 0 S. 22, 30 E. It was discovered by Dr Livingstone in 1840. See Mampoor.

Ni'ger or Quor'ra, a great river, whose course was long a mystery, has its source in the mountains of Kong, about 250 miles inland from Sierra Leone. Flowing N. E., it is called the Joliba as far as Sego, and even Timbuctoo. It then turns to the S. E. and S., and, after a course estimated at 2300 miles, falls, by numerous mouths, into the Bight of Benin.

Ni'ki, a large city of Borgoo, in Central Africa.

Nile, the river of Egypt, and one of the most celebrated streams of the Old World, was an object of wonder and veneration to the ancients, as it has been of eager curiosity to the moderns. The main branch, called Bahr el Abiad or the White Nile, has its origin from a chain of lakes situated in the region of the equator, and on a table-land elevated 3533 feet above the sea-level. Uniting at Khartoum, in Nubia, with the Bahr el Azrek or Blue River from Abyssinia, it forms one large stream, which flows through Nubia and Upper Egypt, where it is confined between the mountain-

ranges. Near Cairo, the valley widens, and the Nile, separating into two great arms, enters the broad plain of the Delta, which it encloses, and falls into the Mediterranean by the western mouth at Rosetta, and by the eastern at Damietta. The length of its course is supposed to be about 4000 miles. See EGYPT, p. 279.

Nu'bia. See Remarks, p. 280.

Nyanza. See Victoria-Nyanza.

Nyassa, or the "Lake of the Stars," a lake of Central Africa, about 250 miles long and 26 miles wide, between 10, 24 and 14, 25 S. The Shire, one of the tributaries of the Zambezi, issues from it.

Nyffé, a fine country of Central Africa, east of the Niger, with considerable trade and some manufactures.

OBEID', the capital of Kordofan, in Central Africa. Pop. 30,000.

Ol'iphant or Ol'ifant River, rises in the mountains of the Cape Colony, and falls into the Atlantic.

O'ran, a seaport of Algeria, with strong fortifications. It was founded by the Spaniards. Pop. 24,845.—35, 40 N. 0, 35 W.

Orange or Gariep', a river of South Africa, dividing the Cape Colony from the Country of the Hottentots; it rises in the Kashan Mountains, and, after a circuitous course of about 1000 miles, falls into the Atlantic.

PAL'MAS, Cape, a promontory of W. Africa, forming the western termination of the Ivory Coast.—4, 22 N. 7, 44 W.

Port Lou'is, the capital of the island of Mauritius, on the N. W. coast; it is strongly fortified, and has a good harbour. Pop. 35,000.—20, 9 S. 57, 28 E.

Por'to Fari'na, on the site of the ancient *U'tica*, a seaport of Tunis, at the mouth of the Mejerdah.

Prince's Island, a small island in the Gulf of Guinea. It belongs to Portugal. Pop. 4000.

QUILIM'ANE', a seaport of E. Africa, near the mouth of the great river Zambezi. It is the capital of a Portuguese government, and has considerable trade. Pop. 3000.—17, 53 S. 36, 40 E.

Quiloa (Keel'wa), a seaport of Zanguebar, situated on an island; it is the chief town of a province of the same name, subject to the Imaum of Muscat.

RABATT', a fortified seaport of Morocco, on the S. side of the Bu-

Regreb, immediately opposite Sal-lee. It has considerable manufactures and trade. Pop. 27,000.—34, 3 N. 64, 38 E.

Rab'ba, a large town of Central Africa, on the Niger. It excels in the manufacture of mats. P. 40,000.

Red Sea. See Descriptive Table of Asia, p. 264.

Reun'ion, formerly called Bourbon, a fertile island in the Indian Ocean, about 400 miles east of Madagascar. It is 38 miles long and 28 broad. It is almost altogether of volcanic formation, and a mountain in the S. still emits fire, smoke, and ashes. It has belonged to the French since 1649. Pop. 210,000. St Denis, the capital, on the N. coast, with the district, has a pop. of 19,140.—20, 50 S. 55, 31 E.

Ri'o Grande, a river of W. Africa, which, after a course of about 400 miles, enters the Atlantic near Cape Roxo, by several estuaries.

Roset'ta, a town of Egypt, at the mouth of the western branch of the Nile. Here, in 1799, an engraved slab was found, since called the Rosetta Stone, which led to the discovery of a key to the interpretation of the Egyptian hieroglyphics. Pop. 18,300.—31, 24 N. 30, 26 E.

Rox'o, a cape on the W. coast.—12, 22 N. 16, 51 E.

SACK'ATOO, the largest city of Central Africa, the capital of Houssa, on a tributary of the Niger. Here Clapperton, the traveller, died in 1827. Pop. 20,000.—13, 10 N. 6, 6 E.

Saf'fi, a seaport of Morocco, with a fine harbour. Pop. 12,000.—32, 17 N. 9, 0 W.

Saha'ra or the Great Desert. See p. 282.

Saldan'ha, a bay on the S. W. coast of the Cape Colony.

Sallee', a decaying seaport on the W. coast of Morocco, at the mouth of the Bu-Regreb. Pop. 10,000.

Sal'vador, St, or Benza Congo, a city of W. Africa, the capital of Congo. Pop. about 20,000.

Se'go, a flourishing city of Central Africa, the capital of Bambarra, on the Niger. Pop. 30,000.

Sen'egal, a large river of Western Africa, which has its source in the mountains of Kong, not far from the sources of the Gambia and the Rio Grande. In its progress through the country of the Foulahs it is swelled by numerous streams, and, after a



course of about 1000 miles, falls into the Atlantic.

**Senegam'bia**, the name given to the countries of W. Africa watered by the Senegal, Gambia, and Rio Grande, having the Sahara on the N., and Upper Guinea on the S. This extensive region is divided into a number of states or kingdoms, inhabited chiefly by the Foulahs, Mandingoes, and Yaloffs.

**Senna'ar**, a city of Nubia, on the Bahr el Azrek or Blue River. Pop. 4000.—13, 33 N. 33, 30 E.

**Seychel'les**, a group of 30 islands in the Indian Ocean, of which Mahé is the chief. They belong to Great Britain, and form a dependency of the government of the Mauritius. P. 7500.

**Shar'y**, a large river of Central Africa, falling into Lake Chad, after a course of about 350 miles.

**Shen'dy**, a town of Nubia, near the Nile, the emporium of the trade of Central Africa with Egypt and Arabia. Pop. 10,000.

**Shir'wa**, a lake in Central Africa, about 14° S. from the equator, separated by a narrow isthmus from Lake Nyassa. It is about 90 miles long and 40 broad.

**Sho'a**, an extensive and fertile province in the S. of Abyssinia. It is perhaps the most powerful state in Abyssinia. Pop. 1,500,000. Ankobar is the capital.

**Si'dra**, a large gulf on the coast of Tripoli and Barca; the *Syr'tis Ma'jor* of the ancients, by whom the navigation was considered very dangerous from its quicksands.

**Sier'ra Leo'nè**, a British colony in Western Africa, watered by the Rokelle or river of Sierra Leone. It was founded in 1787. The climate is extremely unhealthy, especially to Europeans. Pop. 41,806, chiefly liberated negroes.

**Siout' or Essiout'**, the capital of Upper Egypt, on the Nile, a place of considerable trade. Pop. 20,000.—27, 10 N. 31, 14 E.

**Slave Coast**, a country of Upper Guinea, extending from the Rio Volta to the Bay of Lagos.

**Soco'tra**, an island in the Indian Ocean, about 120 miles E. from Cape Guardafui. It is mountainous, and produces the finest aloes. It belongs to Keshin, one of the lesser states of Arabia. Pop. 5000.

**Sof'ala**, supposed by some to be the *Ophir* of Scripture, a country, with a

town of the same name, on the coast of Eastern Africa, to the S. of the great river Zambezi.

**Soudan' or Nigri'tia**, the name applied to the region of Central Africa which lies to the S. of the Sahara or Great Desert, to the E. of Senegambia, and to the W. of Abyssinia. It comprehends the basin of Lake Chad and the regions watered by the Niger and its tributaries. Pop. 38,800,000.

**Spar'tel**, Cape, a promontory at W. extremity of the Straits of Gibraltar.—35, 47 N. 5, 58 W.

**Sua'kin**, a seaport of Nubia, on an island in the Red Sea, with a good harbour. Pop. 8000.

**Su'ez**, a celebrated isthmus which connects the continents of Asia and Africa, and separates the Mediterranean from the Red Sea. It is about 70 miles broad.

**Su'ez**, a maritime town, at the head of the W. arm of the Red Sea. It is now an important station on the overland route to India. Here the Indian steamers land and embark their passengers. Pop. 2000.—29, 59 N. 32, 34 E.

**Sye'nè**. See Assouan.

**TA'BLE Bay**, in the Cape Colony, S. Africa, encircled by three lofty mountains.

**Taf'ilet**, a district S. of Mount Atlas, tributary to Morocco. It is a vast level plain, of which dates are the chief produce.

**Tanganyi'ka** (called also Uniamesi and U'ijii), a lake in Central Africa, about 250 miles to the S. of the equator, discovered by Captains Burton and Speke in 1858. It is about 330 miles long, and from 30 to 40 broad. It lies between 3, 10 and 7, 20 S., and 29, 30 and 30, 30 E.

**Tan'gier**, a strong seaport of Morocco, on the Straits of Gibraltar. It belonged to Britain from 1662 to 1684. Pop. 10,000.—35, 47 N. 5, 48 W.

**Tan'ta**, a town of Lower Egypt, containing a shrine, which is visited yearly by 150,000 pilgrims. Pop. 19,500.

**Taroudant'**, a city of Morocco, famous for its manufacture of leather. Pop. 21,000.—30, 10 N. 8, 50 W.

**Tat'ta** and **Ak'ka**, two towns on the S. frontier of Morocco, from which the caravans for Timbuctoo take their departure.

**Tchad**. See Chad.

**Tet'uan**, a fortified seaport of Mo-



ness, within the Straits of Gibraltar.  
Pop. 16,000.— $36^{\circ} 30' N$   $5^{\circ} 10' W$

Thomson, St., an island to the S. of Guinea, situated nearly on the equator. It is remarkable for its fertility but is very unhealthy. It belongs to Portugal. Pop. 12,000.

Togo is a state in the N. W. portion of Africa.

Tombouctou, a commercial city of Central Africa, situated about 8 miles from the bank of the Niger on the borders of the Great Desert. European travellers have made fruitless efforts to penetrate to Tombouctou, at last Major Laing succeeded by reaching it in 1826 but was murdered on his return homeward. Pop. about 15,000.  $16^{\circ} 5' N$   $3^{\circ} 45' W$

Touren, a town of Senegal, a town of Algeria, near the capital of a Moorish kingdom. Pop. 5000.— $35^{\circ} 5' N$   $1^{\circ} 5' W$

Tripoli and Barca, the most northerly of the Barbary States, consisting of a long line of coast. For a few miles inland it is extremely fertile, but beyond that is occupied with deserts of sand or with mountainous tracts. Pop. 70,000.

Tripoli, the capital of the above state, stands on a rock washed by the sea, and is defended by numerous bastions. It has considerable trade with Europe and Russia, to Central Africa. It takes its name from the chief Thracian, from whence the chiefs of these ancient Carthaginians came. Pop. 15,000.— $33^{\circ} 25' N$   $13^{\circ} 11' E$

Tybeles of Africa, three small islands to the S. Atlantic, about 170 miles to the W. of the Cape of Good Hope, and nearly midway between Africa and America.  $31^{\circ} 15' N$   $14^{\circ} 30' W$

Tybeles, one of the Barbary States, situated between Algeria and Tripoli, and remarkable for its timber and fertility. Opening into the Mediterranean, its northern extremity is only about 30 miles from the coast of Italy. Pop. 60,000.

Tybeles, the capital of the above state, stands on a spacious bay and is strongly fortified. Its trade is considerable and extensive. Approaching the river of Senegal, 60 miles N. E. and crossed its grandness to the neighbouring savannas. Its situation. Pop. 120,000. of which 10,000 are Jews.  $33^{\circ} 45' N$   $10^{\circ} 10' E$  (V.S.D.) Cape, a bold headland stretching into the Atlantic, and forming the extreme western point of Africa.— $34^{\circ} 45' N$   $17^{\circ} 30' W$

Vard, Cape, islands, a group to the Atlantic, belonging to Portugal, about 100 miles W. from Cape Vard. The largest are St. Jago, St. Antonio, and St. Vincent. Vard, one of the islands has a volcano 9470 feet high. Cotton, sugar and molasses are the chief products. Pop. 65,700.

Victoria Nyanza, a lake in Central Africa, on the equator. It is crossed with islands, is about 200 miles long and 50 miles broad, and is more than 100 feet above the sea. A river issuing from its northern extremity flows into another lake, Albert Nyanza, from whence issues the White Nile.

Voulo, a river of W. Africa, which crosses the boundary between the Gold Coast and the Slave Coast.

W. A. L. E. T. a town of Central Africa, the capital of Senegal. It has a large trade to and from.

Wade, a town of Central Africa, the capital of Senegal or Kay Sahel.

Wart, a town of Upper Guinea, the capital of a district of Guinea. Pop. 10,000.

Weke, a town of Central Africa, subject to Senegal. Pop. 10,000.— $10^{\circ} 15' N$   $4^{\circ} 30' E$

Whydah, a capital on the Slave Coast, subject to the King of Dahomey. Pop. 10,000.

Yacut, a populous state of Central Africa, producing rice and other grains.

Yam, a large town, the capital of the above state, near the Niger.— $11^{\circ} 10' N$   $5^{\circ} 12' E$

Yarriba, a kingdom of Central Africa, W. of the Niger. It is very fertile and is inhabited by a civil and industrious people. Pop. 2,500,000.

Yacut, an island in the Niger opposite Bahr, about 10 miles long and 5 broad. The people manufacture the finest cloths in this part of Africa.

Yacut or Congo, a large and rapid river of W. Africa, which after a course of about 1000 miles, discharges itself into the Atlantic. It is supposed to spring from Lake Dilis, the source of water in which the Zambesi takes its rise.

Yacut, a town, or perhaps, a large river of E. Africa, where rises a lake (about 11 to 12 miles long) and after a course of more than 100 miles through a fruitful and populous country falls into the Mozambique Channel by several outlets.

About 800 miles from the sea, Dr Livingstone discovered the Falls of Victoria, where the river, about 1860 yards broad, is precipitated over a rock 310 feet high. It then runs for about 30 miles in a channel not more than 20 yards wide. Like the other great African rivers—the Nile, the Niger, and the Zaire—the Zambezi periodically overflows its banks.

Zanguebar, a country of Eastern Africa, stretching along the coast, to the north of Mozambique.

Zanzibar, an island in the Indian Ocean, near the coast of Zanguebar,

subject to the Imaum of Muscat. It is fertile, but very unhealthy. Pop. 300,000. The chief town, called Shanganny, has a good trade. Pop. 60,000.—6, 29 S. 39, 33 E.

Zari'a, a town of Central Africa, the capital of Zeg-Zeg. Pop. 40,000.—11, 4 N. 8, 34 E.

Zeg-Zeg, a flourishing country of Central Africa, S. of Kano, now subject to the Fellatahs.

Zey'la, a seaport of Adel, on an islet near the Straits of Babelmandeb, a place of considerable trade. Pop. 500.—11, 16 N. 42, 56 E.

## AMERICA

Is bounded N. by the Arctic Ocean; W. by the Pacific Ocean; S. by the Southern Ocean; E. by the Atlantic Ocean. Its area is estimated at 15,813,592 square miles. Its population is supposed to be about 74½ millions.

### REMARKS.

America extends from about 82° N. to 56° S. lat., and from 35° to 168° W. long. Its length from N. to S. is about 10,000 miles; its average breadth about 2000 miles.

Till the close of the fifteenth century, this vast continent was unknown to Europeans. Christopher Columbus, a native of Genoa, engaged in the service of Spain, sailed on the 3d of August 1492 in search of a western passage to India, and on the 12th of October arrived at St Salvador, one of the Bahama Islands. In a second voyage, he touched at several large islands, supposed by him to belong to India, and which were therefore called the *West Indies*. In his third voyage, in 1498, he reached the American mainland, which had been discovered in the preceding year by John Cabot, a Venetian in the service of England. Amerigo Vespucci, a native of Florence, sailed to the newly discovered continent as pilot to Hojeda, a Spanish commander, in 1499; and having published an account of the country, it came to be called after his name, America.

The discovery of this vast region excited the most eager curiosity in Europe. In magnitude it seemed to exceed any of the great continents hitherto known; while the unusual aspects of Nature led the beholders to regard it as a New World, which had risen but recently under the Creator's hand. Forests of *unknown trees*, surpassing in extent and magnificence all that

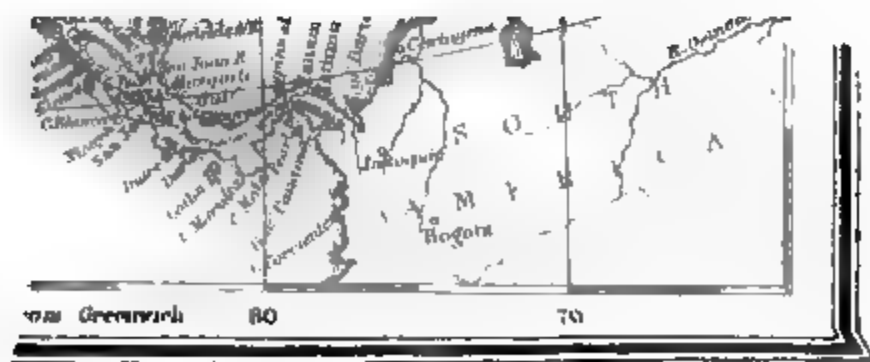
had been seen before; vast mountain-ranges, with a single exception the loftiest on the globe; rivers which rolled to the ocean with the majesty of seas,—these were the sublime features of this Western World. Its animals differed no less from those with which Europeans were familiar, and it appeared to be inhabited by a peculiar race of human beings. Its soil teemed with the choicest productions; and mines of the precious metals offered the tempting prospect of immediate and incalculable wealth.

The unhappy natives soon had reason to deplore the arrival of strangers on their shores. The Spaniards and Portuguese—having obtained from the Pope a grant of these newly found regions, as if they had been at his absolute disposal—fitted out one expedition after another, waged a relentless and almost exterminating war with the inhabitants, and spread themselves rapidly over both the Northern and the Southern Continent. The natives, supposed to have originally migrated from Asia by Behring's Straits, were of a copper colour, tall, and well formed,—in South America, generally slender,—in North America, more vigorous and robust. When first visited by the Spaniards, Peru and Mexico were populous and comparatively civilized kingdoms; and native tribes occupied, at least partially, both continents from the Arctic to the Southern Ocean. The aborigines are now gradually disappearing, or forming mixed races with the whites.

#### EXERCISES.

How is America bounded? What is its area in square miles? What is supposed to be the amount of its population? Between what degrees of latitude and longitude is it situated? What are its length and breadth? When did America become known to Europeans? What island of America was first discovered? By whom, and in what attempt? What islands did Columbus discover in his second voyage? In what year did he reach the American continent? By whom had it been discovered in the year preceding? From whom did America receive its name? What effect did the discovery of this continent produce in Europe? In what light were the new visitants of this continent led to regard it? What were the sublime features of the New World? Did its animals and natives differ from those of other continents? By what circumstances was the cupidity of its discoverers inflamed? Had the natives reason to rejoice in the arrival of these strangers on their shores? What European nations fitted out expeditions to America? How did they treat the natives? Whence are the natives of America supposed to have come? What was their personal appearance? In what state were Mexico and Peru when first visited by the Spaniards? Were there many tribes scattered over the continent? What is now the estimated amount of the Indian population?

1



The Isthmus of Panama or Darien divides the American continent into two great parts—NORTH AMERICA and SOUTH AMERICA.

## NORTH AMERICA

Is bounded N. by the Arctic Ocean; W. by the Pacific Ocean; S. by the Pacific Ocean, the Isthmus of Darien, the Gulf of Mexico, and the Caribbean Sea; E. by the Atlantic Ocean. It extends from about 8° to about 82° N. lat., and from about 20° to 168° W. long. Its length, from N. to S., is about 5600 miles; its breadth, from the E. of Nova Scotia to the mouth of the Columbia River, is about 3000 miles. Its area is estimated at 8,000,000 square miles. Its population is supposed to be about 48 millions.

Divisions.	Chief Towns.
British America.....	Ottawa, Toronto, Montreal, Quebec, Halifax, St John.
Danish America (Greenland).....	Julianshaab, Uppernavik, Christianshaab.
United States (with Aliaska).....	Washington, New York, Philadelphia, Boston, Cincinnati, Chicago, Sitka.
Mexico.....	Mexico, Vera Cruz.
Central America.....	New Guatemala, Cojutepeque, Comayagua, Managua, San José, Belize.
West India Islands.....	Havannah, Cape Haytien, San Domingo, Spanish Town, Kingston.

Its ISLANDS, besides Greenland and the West Indies, are Newfoundland, Cape Breton, Prince Edward Island, the Bermudas; Vancouver's Island, Queen Charlotte's Island, the Aleutian Islands; Parry Islands, Banks Land, Cockburn Island, Southampton Island.

PENINSULAS.—Nova Scotia, Florida, Yucatan, California, Aliaska.

LAKES.—Superior, Michigan, Huron, Erie, Ontario; Great Bear Lake, Great Slave Lake, Athabasca, Winnipeg, Mistassin; Champlain; Great Salt Lake; Nicaragua.

RIVERS.—Mississippi, Missouri, Ohio, St Lawrence, Hudson, Arkansas, Red River, Rio Colorado, Rio Grande del Norte, Columbia or Oregon, Frazer River, Mackenzie River, Coppermine River, Back or Great Fish River.

GULFS AND BAYS.—Baffin's Bay, Gulf of Boothia, Coro-

nation Gulf, Hudson's Bay, James' Bay, Gulf of St Lawrence, Bay of Fundy; Chesapeake Bay, Florida Channel, Gulf of Mexico, Bay of Campeachy, Bay of Honduras; Gulf of California, Queen Charlotte's Sound, Gulf of Georgia, Nootka Sound.

**STRAITS.**—Davis' Straits, Lancaster Sound, Barrow's Straits, Melville Sound, Banks Strait, Prince Regent's Inlet, Hudson's Straits; Straits of Belleisle; Strait of San Juan de Fuca; Behring's Straits.

**CAVES.**—Farewell, Chudleigh, Charles, Sable, Cod, Hatteras, Tancha or Sable Point, Catoche, St Lucas, Prince of Wales, Icy Cape.

**MOUNTAINS.**—Appalachian or Alleghany Mountains, Rocky Mountains, Mount St Elias, Mount Fairweather, Sierra Nevada and Cascade Mountains, the Mountains of Mexico.

#### EXERCISES.

What are the boundaries of North America? Between what degrees of latitude and longitude does it extend? What are its length and breadth? What is its area in square miles? What is the estimated amount of its population? What are its divisions? Name its islands. Name its lakes. Name its rivers. Mention its bays, gulfs, and straits. Name its capes and mountains. Point out on the maps its islands, lakes, etc.

### BRITISH AMERICA

Is bounded N. by Baffin's Bay and the Arctic Ocean; W. by Aliaska and the Pacific Ocean; S. by the United States; E. by the Atlantic Ocean and Davis' Straits. Its area is estimated at about 2,468,901 square miles. Its population is supposed to be about 3,755,261.

#### Divisions.

#### Chief Towns.

Hudson's Bay Territories, and Labrador.....	York Fort, Nain.
Dominion of Canada (in- cluding Ontario and Que- bec, New Brunswick, and Nova Scotia, with Cape Breton Island).....	} OTTAWA, Toronto, Kingston, Quebec, Montreal, Halifax, Annapolis, Pic- tou, Fredericton, St John, Sydney.
Newfoundland.....	
Prince Edward Island.....	Charlotte Town.
British Columbia and Van- couver's Island.....	New Westminster, Victoria.

**CAVES.**—Gaspè, Sable, Canso, Breton, Ray, Race, Charles, Chudleigh.

**BAYS, GULFS, STRAITS, ETC.**—Baffin's Bay, Davis' Straits, Lancaster Sound, Barrow's Straits, Prince Regent's Inlet, Melville Sound, Banks Strait, Prince Albert's Sound, Coronation Gulf, Dease Strait, Ross Strait, Hudson's Straits, Hudson's Bay, James' Bay; Straits of Belleisle, Gulf of St Lawrence, Bay of Fundy; Queen Charlotte's Sound, Gulf of Georgia.

**LAKES.**—Superior, Huron, Erie, Ontario, Winnipeg, Athabasca, Great Slave Lake, Great Bear Lake, Mistassin.

**RIVERS.**—St Lawrence, Niagara, Ottawa, St John, Coppermine, Mackenzie, Back or Great Fish River, Frazer River.

#### REMARKS.

The British dominions in North America extend from  $42^{\circ}$  to about  $72^{\circ}$  N. lat., and from  $52^{\circ} 43'$  to  $141^{\circ}$  W. long. Their extreme length from east to west, from the Atlantic to the Pacific, is about 3000 miles; their breadth, from north to south, about 2000 miles.

The great river St Lawrence, with its chain of immense fresh-water lakes, is, perhaps, the most striking feature of British America. The St Lawrence issues from Lake Superior, and, passing through Lakes Huron, Erie, and Ontario, falls into the Atlantic, after a course of nearly 2200 miles. It is 90 miles wide at its mouth, and is navigable by ships of the line for 400 miles from the ocean.

Canada was colonized by the French in 1608, and continued in their possession until ceded to Britain in 1763. It was long known by the names of Upper and Lower Canada, and Canada East and West; but in 1867 it was divided into two provinces, entitled Ontario and Quebec. The former embraces the portion formerly designated Upper Canada, and the latter that which was known as Lower Canada. In both provinces cold and heat are felt in their extremes, and the transition from winter to summer is very sudden. Although lying under the same parallel of latitude as France, the thermometer sometimes sinks in winter  $36^{\circ}$  below zero; while in summer it occasionally rises as high as  $102^{\circ}$ . The year is divided between these seasons,—*spring and autumn* being almost unknown. The frost begins



in October ; and the snow disappears about the end of April, when vegetation proceeds with great activity. The climate, however, is far from unhealthy.

The soil of Quebec (Lower Canada) is in many places fertile, producing good grain and pasturage. Ontario (Upper Canada) has extensive and fruitful plains, scarcely excelled by any portion of North America, and there are large tracts of rich land, stretching far to the north, as yet covered with extensive forests. The most populous and cultivated districts are along the banks of the St Lawrence and the shores of Lake Ontario. Apples and pears arrive at great perfection in the neighbourhood of Montreal ; and fruits of various kinds, particularly the melon, appear to be indigenous. Oak, pine, maple, birch, elm, and lime, are the most common trees. The lakes and rivers abound with excellent fish. The moose-deer and the beaver may be mentioned among the wild animals. The Canadian humming-bird is the smallest known. The rattlesnake is the most dangerous of the reptiles. The exports are chiefly furs, oak, pine, and elm timber, potash, fish, wheat, and flour. Like Canada, both New Brunswick and Nova Scotia abound in timber, and are making great progress in wealth and population. Newfoundland is the seat of the most extensive cod-fishery in the world.

The population of Quebec (Lower Canada) is 1,230,000, the greater number being still of French descent, generally retaining the French language and manners. Ontario (Upper Canada) has been colonized chiefly from Britain, but partly from the United States. The population is 1,700,000. In 1867, the Canadas, with Nova Scotia and New Brunswick, were formed into the Dominion of Canada, under one governor. The legislative authority is vested in a parliament of two houses, viz., the Senate, appointed equally by the Governor-General and the people, and the House of Assembly, elected entirely by the people.

There is complete religious toleration ; the prevailing denominations in Ontario (Upper Canada) are the Church of England Episcopalians, the Presbyterians, and Methodists ; in Quebec (Lower Canada) the Roman-catholic Church predominates. An immigration, at an average rate of 15,000 yearly, takes place, chiefly from Britain and Germany. The trade is chiefly with the United States, Great Britain, and *France*. The internal commerce is greatly facilitated by *canals*, the largest of which, the Rideau and Welland Canals,

are in the region of the lakes. A great trunk line of railway from Toronto eastward passes the chief towns, and connecting lines from Montreal communicate with the United States.

The British possessions in America extend over all of the continent lying north of the 49th degree of N. lat., excepting the north-western corner, now known as Aliaska, which the United States purchased from Russia in 1867. Of this immense region, only a comparatively small portion is capable of being settled. The countries around Hudson's Bay and Labrador are dreary in the extreme, being buried under snow for half the year. The chief native tribes are the Esquimaux, who are scattered over the N. coast of Hudson's Bay and along the shores of the Arctic Ocean; the Chippewya and Cree Indians; the Stone Indians or Assiniboines; the Copper Indians; the Hare Indians; the Dog-rib, the Strong-bow, and the Black-foot Indians.

The enterprise of British voyagers has explored large tracts and islands within the Arctic zone,—North Devon, North Lincoln, Ellesmere Island, the Parry Islands, Cockburn Islands, Boothia, King William's Land, Prince Albert's Land, Banks Land, etc. Nearly all the northern coast of America has also been explored. These barren and dreary regions are interesting only to science and curiosity. For an account of New Brunswick, Nova Scotia, etc., see the DESCRIPTIVE TABLE.

#### EXERCISES.

How is British America bounded? What is its area in square miles? What is the amount of its population? Name the divisions and chief towns. What are its capes, bays, etc., lakes, and rivers? Between what degrees of latitude and longitude is it situated? What are its length and breadth? What is the most striking feature in its aspect? Name its great lakes. By what river are they connected? What is the length of its course? How wide is it at its mouth? How far is it navigable for ships of the line? When and by whom was Canada colonized? When was it ceded to the British? Name its provinces. What is remarkable in the climate? What are the extreme degrees of the thermometer in winter and summer? Into what seasons is the year divided? At what period does winter begin and disappear? Is the climate healthy? What is the quality of the soil of the province of Quebec? What are the principal features of the province of Ontario? What are the most populous and improved districts? Name the principal fruits. What are the most common forest-trees? With what do the lakes and rivers abound? Mention some of the more remarkable animals. What are the chief seaports?

What is the population of Quebec province, and of what descent are the majority of the people? What language and manners do they generally retain? From what countries has Ontario been colonized? What is the amount of its population? When was the Dominion of Canada constituted? What is the form of government? What is the state of religion in Canada? What is the yearly rate of immigration? With what countries does Canada trade? What are the chief canals and railroads? Beyond what parallel of latitude do the British North American possessions extend? Is the country suitable for settlements? What aspect do the countries around Hudson's Bay present? What are the chief native tribes? What is their present condition? What has the enterprise of British voyagers discovered within the Arctic circle?

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### DANISH AMERICA OR GREENLAND

Is bounded E. by the Arctic Ocean; W. by Davis' Straits, Baffin's Bay, Smith Sound, and Kennedy Channel; S. by the Atlantic. Its northern boundary has not been explored, but is supposed to be the Arctic Ocean. Its area is estimated at about 380,000 square miles. Its population is 9400.

#### REMARKS.

Greenland stretches from Cape Farewell, in lat.  $59^{\circ} 49'$ , northwards towards the Pole; the highest latitude yet reached be-  $81^{\circ} 20'$ . It extends from  $20^{\circ}$  to  $75^{\circ}$  W. longitude.

It was long supposed to be part of the continent of America, but is now generally believed to be an island or cluster of islands. It has been described as "a mass of rocks, intermingled with immense blocks of ice." Yet there is some land that admits of cultivation. During the short summer, the air is pure on the mainland, but obscured in the islands by fogs. The long night of winter is relieved by the shifting splendours of the aurora borealis. The thermometer, which in July reaches  $84^{\circ}$ , often sinks in January to  $40^{\circ}$  below zero. The animal productions of the country constitute the subsistence and the wealth of the inhabitants. Of the land-animals the principal are hares, valuable for their flesh and fur, rein-deer, foxes, and large dogs employed in drawing sledges, and distinguished by the peculiarity of howling instead of barking. The seas swarm with turbot, herrings, and whales. But the marine animal most prized by the natives is the seal. Its flesh is their principal food; its skin supplies them with dress, and with a covering for their canoes; its tendons are made into thread; and so

essential an article of subsistence does the Greenlander account it, that he cannot comprehend how man could live without it. Large flocks of aquatic birds frequent the seas, rivers, and lakes.

Providence, which adapts the endless diversity of productions to every variety of climate and soil—supplying the deficiencies of one region by the abundance of another—furnishes the sterile shores of Greenland and other Arctic regions with timber, which is borne hither by the tides and currents of the ocean from the coasts of America and Asia, in such quantities, that a year's fuel may sometimes be collected during the short season of summer, and in such preservation as to afford excellent materials for building houses and canoes.

The Greenlanders are a branch of the Esquimaux : they are of short stature, with long black hair, small eyes, and flat faces. The country is subject to Denmark, which maintains a few small settlements on the W. coast; and the laudable exertions of the Danish missionaries for the conversion of the natives to Christianity have been crowned with considerable success. The chief villages are Julianshaab, Christianshaab, Uppernavik, Frederickshaab, and Good Hope. The European population does not exceed 250.

#### EXERCISES.

What is Greenland, and where is it situated? What description has been given of it? What are its area and population? How does the weather of the short summer differ on the mainland and in the islands? How is the long night of winter relieved? In what does the wealth of the inhabitants consist? What are the principal land animals? What kinds of fish abound in the seas? What marine animal is most prized by the natives? To what useful purposes do they convert it? How are the shores of Greenland and other Arctic regions supplied with timber? In what quantities and in what state of preservation does it arrive? Of what people are the Greenlanders a branch? What is their personal appearance? To what European power is Greenland subject? What are the chief villages? What is the number of the European population?

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### THE UNITED STATES OF AMERICA

ARE bounded N. by British America; W. by the Pacific Ocean; S. by Mexico and the Gulf of Mexico; E. by the Atlantic Ocean. Their area (exclusive of the recently acquired territory of Aliaska) is 3,306,834 square miles.

**Their population is 31,676,217, of whom 4,002,996 are negroes.**

Divisions.	Chief Towns.
<b>I. North-Eastern or New England States :</b>	
Maine.....	Augusta, Portland, Bangor, Bath.
New Hampshire.....	Concord, Manchester, Portsmouth, Dover.
Vermont.....	Montpelier, Burlington, Middlebury.
Massachusetts.....	Boston, Lowell, Salem, Cambridge.
Rhode Island.....	Providence, Newport.
Connecticut.....	Hartford, Newhaven, Norwich, New London.
<b>II. Middle States :</b>	
New York.....	Albany, New York, Brooklyn, Buffalo.
Pennsylvania.....	Harrisburg, Philadelphia, Pittsburg.
New Jersey.....	Trenton, Newark, Jersey City.
+ Delaware.....	Dover, Wilmington.
+ Maryland.....	Annapolis, Baltimore.
+ District of Columbia.	WASHINGTON, Georgetown.
<b>III. Southern States :</b>	
(1.) <i>Atlantic States :</i>	
*+ Virginia.....	Richmond, Norfolk, Petersburg.
*+ North Carolina.....	Raleigh, Wilmington, Newbern.
*+ South Carolina.....	Columbia, Charleston.
*+ Georgia.....	Milledgeville, Savannah, Augusta.
(2.) <i>Gulf States :</i>	
*+ Alabama.....	Montgomery, Tuscaloosa, Mobile.
*+ Florida.....	Tallahassee, St Augustine, Pensacola.
*+ Mississippi.....	Jackson, Natchez, Columbus.
*+ Louisiana.....	Baton Rouge, New Orleans.
*+ Texas.....	Austin, Houston, Galveston.
<b>IV. The Pacific States :</b>	
California.....	Sacramento, Penicia, San José, San Francisco.
Nevada.....	Carson City, Virginia.
Oregon.....	Salem, Portland.
<b>V. North-Western States :</b>	
Nebraska.....	Omaha, Nebraska.
Iowa.....	Des Maines, Dubuque, Davenport.
Minnesota.....	St Paul, St Anthony.
Wisconsin.....	Madison, Milwaukie, Racine.
Michigan.....	Lansing, Detroit.
Illinois.....	Springfield, Chicago, Peoria.
Indiana.....	Indianapolis, New Albany, Madison.
Ohio.....	Columbus, Cincinnati, Cleveland.
<b>VI. Mid-Western States :</b>	
+ West Virginia.....	Wheeling, Parkersburg.
+ Kentucky.....	Frankfort, Louisville, Covington.

**\* In 1860-61, the states marked thus \* declared themselves no longer members of the United States, and resolved to form a new Union under the name of "The Confederate States of America."**

† This mark indicates what were formerly the slave holding states.

## Divisions.

## Chief Towns.

VI. Mid-Western States, *continued*:

\*†Tennessee.....Nashville, Memphis, Knoxville.

†Missouri.....Jefferson City, St Louis.

Kansas.....Topeka, Leavenworth.

\*†Arkansas.....Little Rock.

## VII. Territories not yet erected into States:

Aliaska.....Sitka or New Archangel.

Washington.....Olympia.

Idaho.....Idaho City.

Montana.....Virginia, Helena.

Dacotah.....Yankton.

Wyoming.....

Utah.....Great Salt Lake City.

Colorado.....Golden City, Denner.

Arizona.....Prescott.

New Mexico.....Santa Fé.

ISLANDS.—Rhode Island, Long Island, Staten, Nantucket.

BAYS.—Penobscot, Massachusetts, Delaware, Chesapeake, Long Island Sound, Florida Channel; Monterey, San Francisco, Humboldt, Columbia, Shoalwater, Gray's Harbour, Admiralty Inlet, Hood's Canal.

CAPIES.—Ann, Cod, May, Charles, Henry, Hatteras, Loukout, Fear, Point Tancha or Cape Sable; Mendocino, Blanco.

MOUNTAINS.—Alleghany or Appalachian Mountains, Rocky Mountains, Sierra Nevada, Cascade Range.

LAKES.—Michigan, Champlain, the southern shores of the Lakes of Canada, Ponchartrain, Great Salt Lake.

RIVERS.—Mississippi, with its tributaries, Missouri, Arkansas, Red River, Ohio, Wabash, Tennessee, Illinois, St Peters; St Croix, Connecticut, Hudson, Delaware, Susquehannah, Potomac, Savannah; Rio Grande del Norte; Rio Colorado, Sacramento, Columbia or Oregon.

## REMARKS.

The United States (excluding Aliaska) extend from 25° to 49° N. lat., and from 67° to 125° W. long. Their length, from east to west, is 2700 miles; their breadth, from north to south, 1650 miles.

This vast region is traversed by two great chains of mountains, in a direction nearly N. and S., viz., the Alleghanies on the E. and the Rocky Mountains on the W. These divide the country into the eastern, western, and middle regions; the latter comprising the great and fertile basin of the Mississippi. The range of the Alleghanies is about 800 miles in length, and stretches, in several ridges, nearly parallel to the Atlantic, at a distance from the coast of from 50 to 200 miles. Mount Washington, in New Hampshire, the highest peak, is 6652 feet above the sea, but the elevation of the range south of the Hudson rarely exceeds 3000 feet. The Rocky Mountains bound on the W. the valleys of the Mississippi and Missouri, and are on a grand and massive scale. Mount St Helen's rises to 15,750 feet. The Sierra Nevada and Cascade Mountains run parallel to the Pacific on the W. coast.

Of the magnificent rivers which flow through the United States, the largest are the Mississippi and the Missouri. Although the latter has been classed as a tributary of the former, it has the longer course of the two before their junction. The distance between its source in the Rocky Mountains and its confluence with the Mississippi is about 3000 miles; thence to the mouth of the Mississippi, in the Gulf of Mexico, 1265 miles. The Missouri is deep and rapid, and receives numerous rivers in its course, many of them of considerable size. The Mississippi has its source in Lake Itasca, in lat. 47° 10' N. About 160 miles below its junction with the Missouri, it receives the Ohio, swelled by the waters of the Wabash, Cumberland, and Tennessee; and lower down it receives the Arkansas and Red River. The Mississippi flows through a vast plain, which is so gradual in its descent, that the river is navigable to the Falls of St Anthony, about 2000 miles from its mouth; while most of its great tributaries are navigable nearly to their source. Crowds of steam-vessels now constantly ply on these western streams.

The United States are distinguished for the facilities of communication afforded by canals, railroads, and telegraphs. In 1869, there were 54,235 miles of railway in operation, the most important line being the Union Pacific Railway, which opens up direct communication between the Atlantic and Pacific.

The climate is remarkable for its inconstancy; passing suddenly from extreme cold to scorching heat. To the west of the Alleghany Mountains the weather is more equable and temperate. The general aspect of the country is that of a vast

forest, becoming denser as the traveller passes westward. On the west of the Alleghany Mountains it expands into immense level meadows or savannas, called prairies. The soil is in general fertile. Among the trees are the larch and pine, several species of oak, walnut, poplar, maple, the white cedar, the occidental plane, the tulip-tree, and the magnolia. The last of these, for its gigantic size, its splendid flowers and fruit, is unsurpassed even in the forests of the New World.

In the northern and middle states, the common species of grain are produced. Wheat and maize are raised in every part of the Union. The potato is here in its native soil. Cotton, rice, indigo, tobacco, hemp, flax, and sugar, are the chief productions of the southern states. Apples and pears, of the finest flavour, abound in the northern and middle regions; and there are large orchards of peaches, from which brandy is distilled.

The bison or buffalo, the moose-deer, the elk, and the caribou or rein-deer, are found in the plains and forests. The more ferocious animals are the bear, the wolf, the spotted tiger, and the cougar or American panther. The feathered creation are distinguished by the splendour of their plumage; but in general their notes have little beauty or variety, though the power of imitation in the mocking-bird is very surprising. The humming-bird is the smallest and most beautiful of the winged tribes. Serpents are numerous and formidable, and various species are met with in the forests. The rattlesnake, armed with a deadly poison, is peculiarly terrible. The coasts abound with fish, generally of the same species as in Europe; there are also numerous amphibia, the most important being the otter, inhabiting the western coast; its skin is a valuable article of commerce.

The United States have abundance of the more useful metals. The gold-mines of North Carolina were of considerable importance until they were eclipsed by the discovery, in 1847, of the gold-fields of California, which rank next in richness to those of Australia. Coal is found in many places and in large quantities. There are immense beds of iron-ore. California, Illinois, and Wisconsin have rich lead-mines. Copper is found in California and in the vicinity of Lake Superior, and mercury in Kentucky and Ohio. Tin-ore, rare in America, has been recently found at Winslow, Maine. Salt-springs are numerous in Utah and in the great valley of the Mississippi. Petroleum, or rock-oil, is plentiful in Pennsylvania.



The government of the United States is republican. The administration of affairs is confided to a President, a Vice-President, and a Congress, consisting of a Senate and House of Representatives. The Senate consists of two members from each state, chosen by its legislature, for a term of six years, one-third of them being elected every two years. The Vice-President of the United States is the president of the Senate. The House of Representatives is composed of members from the several states, elected by the people for a term of two years; the number of representatives being 241, besides one delegate from each territory. The President, chosen by delegates from each state, holds his office four years.

Each state regulates its own internal affairs, and makes or alters laws relating to property and private rights, police, judges and civil officers, the levying of taxes, and all other matters not vested in the federal government.

There is no religious establishment supported by the state; but Christianity in some form is generally professed. The most numerous denominations are the Methodist, Baptist, Presbyterian, Congregational, Episcopal, and Roman-catholic. The Americans partake both of the good and of the bad qualities which spring from democracy. They are restless, aggressive, turbulent, enterprising, acute, high-spirited, and brave. Much attention is paid to education, particularly in the northern and middle states. The literary institutions are numerous, and the republic can boast of not a few distinguished names in science and letters.

Great part of the country belonged to Britain till the year 1775, when the colonists rebelled against the attempts of the British government to tax them against their will, and finally succeeded in throwing off the British yoke. Their independence was acknowledged in 1783. In 1861 the slave-holding states attempted to separate from the Union, and to constitute a southern confederacy; but after a disastrous warfare of four years, they were forced to succumb, and slavery has now been abolished throughout the Union.

#### EXERCISES.

How are the United States bounded? What is their extent in square miles? What is the amount of their population? What are the North-Eastern States? Name their chief towns. What are the Middle States? Name their chief towns. What are the Southern States? Name their chief towns. What are the North-Western States? Name their chief towns. What are the Mid-Western States? Name their chief towns. What are the territories *not yet erected into states*? Name their chief towns. Name the *islands, bays, capes, mountains, lakes, and rivers.*

Between what degrees of latitude and longitude does the territory extend? What are its length and breadth? By what chains of mountains, and in what directions, is it traversed? Into what regions do those mountains divide the country? At what distance are the Alleghanies from the Atlantic? What is the height of Mount Washington? Describe the Rocky Mountains. What is the height of Mount St Helen's?

What are the most important rivers in the United States? What is the length of the Mississippi? What is the character of the Missouri? What rivers does the Mississippi receive after its junction with the Missouri? How far can vessels ascend the Mississippi and its tributaries?

For what facilities of internal communication are the United States distinguished? What number of miles of railways is in operation? Name the most important line.

For what is the climate of the United States remarkable? What is the general aspect of the country? What is the general quality of the soil? Mention some of the forest-trees. Which of these is the most remarkable? What are the chief agricultural products? Mention some of the fruits. What wild animals are there? By what quality are the feathered creation distinguished? Which of these is the most beautiful? What power does the mocking-bird possess? What dangerous reptiles swarm in the forests? Do the coasts abound with fish? What valuable animal is to be found on the western coast? Does the country possess much mineral wealth? What is the area of its coal-fields? Where is gold found in most abundance? Is iron-ore plentiful?

What is the form of government in the United States? To whom is the administration of affairs confided? Of how many members is the Senate composed? How many members has the House of Representatives? How and for what period is the President elected? How are the internal affairs of each state regulated? What power have these local administrations? Is there any established religion? What are the most numerous denominations? Describe the characteristics of the Americans. Is much attention paid to education and literature? Till what period did great part of the country belong to Britain? By what were the colonists roused to rebellion? When was their independence acknowledged? When did the late civil war commence? What were its results?

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## MEXICO

Is bounded N. by the United States; W. by the Pacific Ocean; S. by the Pacific Ocean and Central America; E. by the Gulf of Mexico and the United States. The area is 712,850 square miles. The population is 8,259,080.

Previous to 1865, Mexico was divided into twenty-five states and one federal district; but that division has been superseded by one into fifty departments, the names of which generally correspond with their principal towns.

*CAPES.*—*St Lucas, Corrientes; Catoche.*

**GULFS AND BAY.**—Gulf of Mexico, Gulf of California, Bay of Campeachy.

**MOUNTAINS.**—Popocatepetl or the Smoking Mountain, Peak of Orizaba, Jorullo.

**RIVERS.**—Rio Grande del Norte, Rio Grande de Santiago, Culiacan.

**LAKES.**—Chapala, Pascuaro, Tezcucó.

#### REMARKS.

Mexico extends from  $15^{\circ} 45'$  to  $32^{\circ} 45'$  N. lat., and from  $87^{\circ}$  to  $117^{\circ}$  W. long. Its greatest length is about 1800 miles; its breadth varies from 130 to 1300 miles.

Mexico is for the most part a plateau or table-land, varying in height from 6000 to 8000 feet above the sea. From this, as from a base, the volcanic peaks of Orizaba and Popocatepetl tower to the height of 17,347 and 17,720 feet. The climate in the more elevated parts is mild and genial; in the maritime districts and the low plains it is hot and unhealthy. Indeed, the temperature of all the three zones, torrid, temperate, and frigid, is here experienced according to the varying elevation; and the traveller, in ascending from the parched shores of Vera Cruz to Mexico, the capital, situated 7471 feet above the ocean, passes through several distinct zones of vegetation.

The soil is extremely fertile. The chief objects of culture are maize, most European grains and fruits, cocoa, coffee, sugar, cotton, indigo, the potato, the cacao, and the maguey. Immense herds of cattle and sheep, both tame and wild, are fed in the northern prairies; the stag, the jaguar, the cougar, and the tapir, are the more remarkable of the wild animals. The cochineal insect is found in great abundance, and is one of the most valuable articles of export.

Until lately no region in the world was considered richer in minerals than this portion of the American continent. Previous to the revolution of 1821, its mines produced gold and silver to the amount of £5,000,000 annually. Their produce was much diminished during the revolutionary war, and, although several millions of British capital have since been invested in them, they have never recovered their former productiveness. There are mines of quicksilver, copper, iron, lead, and tin.

This fine country was wrested from the natives by the Spaniards under Cortez, in 1521. From that time it continued in the possession of Spain till her misgovernment roused the

colonists to rebellion, and, in 1821, Mexico became an independent federal republic. In 1864, Maximilian, son of Archduke Charles of Austria, was elected Emperor of Mexico; but the republican party having continued an armed struggle, the Emperor fell into their power, and was shot by sentence of a military tribunal in June 1867. The Roman-catholic religion is established, the public exercise of every other being prohibited.

## EXERCISES.

How is Mexico bounded? What is its area in square miles? What is its population? How many departments does it contain? Name its capes, mountains, bay, gulfs, rivers, and lakes. Between what degrees of latitude and longitude is it situated? What are its length and breadth? What does it for the most part consist of? What is the elevation of its table-land? To what height do some of the mountains rise? What effect has the varying elevation upon the climate? To what changes of temperature is the traveller sometimes exposed? What are the chief articles of cultivation? What species of cattle are fed in the northern prairies? What are the more remarkable wild animals?

Does the country abound in minerals? What was the annual produce of its gold and silver mines? Has it diminished? What other metals does the country possess? By whom and at what time was it wrested from the natives? When did it become an independent republic? What is the established religion?

## CENTRAL AMERICA

Is the name generally given to the region bounded N. by Mexico and the Bay of Honduras; W. by Mexico and the Pacific Ocean; S. by the Pacific Ocean; E. by New Granada and the Caribbean Sea. It is occupied by five independent states and one British colony. Their aggregate area is about 200,000 square miles. Their population is about 2,146,000.

States.	Chief Towns.
Guatemala.....	New Guatemala, Coban.
San Salvador.....	San Salvador, Cojutepeque.
Honduras.....	Comayagua.
Nicaragua.....	Managua, Leon, Granada, Nicaragua.
Costa Rica.....	San José.
British Honduras.....	Belize.

**GULFS.**—Honduras, Mosquito, Dulce, Nicoya, Fonseca.

**CAPIES.**—Honduras, Camaran, Gracias à Dios, Blanco.

**LAKES.**—Nicaragua, Leon or Managua.

**RIVERS.**—Honda, Belize, Motagua, Segovia, Escondides or Blewfields, San Juan.

## REMARKS.

The territory known by the name of Central America extends from  $8^{\circ}$  to  $18^{\circ} 30'$  N. lat., and from  $81^{\circ} 30'$  to  $93^{\circ} 20'$  W. long. Its greatest length from N. W. to S. E. is about 1000 miles; its breadth varies from 70 to 350 miles.

Central America has considerable diversity of surface. The centre is a table-land elevated on an average about 5000 feet above the sea, with a temperate and agreeable climate; while the low plains near the Pacific, almost covered with forests, are so hot that most of the European settlements have been placed on the heights. Few countries are more subject to earthquakes or contain more active volcanoes. The soil is extremely rich, yielding abundantly all the productions both of tropical and of temperate climates; the staples of the country are indigo, cochineal, dyewoods, mahogany, sarsaparilla, sugar, cotton, cocoa, and Peruvian balsam. Gold, silver, copper, iron, zinc, and antimony, are found in several places.

A water-communication between the Atlantic and Pacific Oceans has long been projected through the Lake of Nicaragua, which is 140 miles long by 40 miles broad; a railway crosses the isthmus from Aspinwall to Panama city.

The Central American Republics were formerly a province of Mexico, but became independent in 1823. They formed themselves into a confederation called "The United States of Central America;" but this union was dissolved in 1839, and each state is now independent. The Roman-catholic religion prevails in them all.

British Honduras has belonged to England since 1670. It has an area of 63,000 square miles, and a population of 25,500. Its chief exports are mahogany and logwood.

## EXERCISES.

What are the boundaries of the country called Central America? What is its area in square miles? What is its population? Name the states by which it is occupied, and their chief towns. Name its rivers, capes, gulfs, and lakes. Between what degrees of latitude and longitude is it situated? What are its length and breadth? Describe its general features. Where are the European settlements placed? To what is the country subject? What are its staple productions? Through what lake has a water-communication between the Atlantic and Pacific been long projected? Of what country were the Central American Republics formerly a province? How long has British Honduras belonged to England? What are its area and population? What are its chief exports?

## THE WEST INDIA ISLANDS

ARE situated in the Atlantic Ocean, at the entrance of the Gulf of Mexico and the Caribbean Sea, and extend in a curved line from the Gulf of Florida to the coast of South America. They are nearly a thousand in number. Their area is about 95,000 square miles. Their population is about 3,870,000.

This great archipelago may be divided into three clusters or groups :

### 1. THE BAHAMAS.

Islands.	Belonging to	Chief Towns.
Great Bahama.....	<i>Britain.</i>	
New Providence.....	<i>do.</i>	Nassau.
St Salvador.....	<i>do.</i>	

### 2. THE GREATER ANTILLES.

Cuba.....	<i>Spain</i> .....	Havannah.
Jamaica.....	<i>Britain</i> .....	Spanish Town, Kingston.
Hayti or St Domingo.....	<i>Independent</i> .....	Cape Haytien, Port- Republicain, St Domingo.
Porto Rico.....	<i>Spain</i> .....	San Juan.

### 3. THE LESSER ANTILLES.

#### *Leeward Islands.*

Santa Cruz....	}	Virgin Isles.	<i>Denmark</i> .....	Christianstad.
St Thomas....			<i>United States</i> .....	St Thomas.
St John.....			<i>do.</i>	
Tortola.....			<i>Britain</i> .....	Tortola.
Virgin Gorda.			<i>do.</i>	
Anegada.....			<i>do.</i>	
Anguilla.....			<i>Britain</i> .....	Anguilla.
St Christopher.....			<i>do.</i>	Basseterre.
Barbuda.....			<i>do.</i>	
Antigua.....			<i>do.</i>	St John.
Montserrat.....			<i>do.</i>	Plymouth.
Nevis.....			<i>do.</i>	Charlestown.
Dominica.....			<i>do.</i>	Roseau.
St Martin.....			<i>France &amp; Holland</i> ...	Philipsburg.
Saba.....			<i>Holland.</i>	
St Eustatius.....			<i>do.</i>	St Eustatius.
St Bartholomew.....			<i>Sweden</i> .....	Gustavia.
Guadeloupe.....			<i>France</i> .....	Basseterre.
Desirade.....			<i>do.</i>	
Mariegalante.....			<i>do.</i>	
Saintes.....			<i>do.</i>	

*Windward Islands.*

Islands.	Belonging to	Chief Towns.
St Lucia.....	<i>Britain</i> .....	Castries.
St Vincent.....	<i>do</i> .....	Kingston.
Grenada.....	<i>do</i> .....	St George.
Barbadoes.....	<i>do</i> .....	Bridgetown.
Tobago.....	<i>do</i> .....	Scarborough.
Trinidad.....	<i>do</i> .....	Port of Spain.
Martinique.....	<i>France</i> .....	Fort Royal.
Margarita.....	<i>Venezuela</i> .....	Assumption.
Buen Ayre.....	<i>Holland</i> .....	
Curaçoa.....	<i>do</i> .....	Williamstadt.

Bermudas .....*Britain* .....St George.

**MOUNTAINS.**—Blue Mountains, Jamaica; Montanos del Cobre, or Copper Mountains, Cuba; Volcano of Morne Garou, St Vincent; Volcano of Souffrière, Guadeloupe.

**REMARKS.**

The West India Islands lie between 10° and 27° N. lat., and between 59° and 85° W. long. They received the name of West Indies from the belief at first entertained that they were the western shores of India. In honour of their discoverer they have sometimes been called the Columbian Archipelago.

The general aspect of the islands is hilly, many of the mountains exhibiting proofs of volcanic origin, and all the islands being subject to earthquakes. Here, as in other tropical countries, the year is divided between the wet and the dry seasons. Spring may be said to commence about the middle of May, when the first periodical rains set in; these continue to fall every day at noon for about a fortnight, creating a bright verdure and rapid and luxuriant vegetation. The weather then becomes dry, clear, and settled. The sun glows with a heat that is almost insupportable, till, the sea-breeze springing up about two hours before noon, all nature revives, and the temperature in the shade becomes pleasant. At this season the nights are extremely beautiful; the moon is so bright that the smallest print may be read by her light; and the planet Venus shines with such lustre that a shade is cast from trees, buildings, and other objects that intercept her rays. This state of the weather ceases about the middle of August, when the steady diurnal wind from the sea is succeeded by faint breezes and alternate calms, the preludes to the second or autumnal rainy season. In October, the rains become general, pouring down in torrents. Between the beginning of August and the end of October, the islands are occasionally visited by terrible hurri-

canes. In November or December, the weather becomes serene and pleasant, and continues cool and refreshing till the end of April. In general, the low parts of the islands may be described as hot and unhealthy; while the climate of the mountainous regions is equable and salubrious.

The islands are rich in almost every tropical production. There is abundance of delicious fruits, such as oranges, lemons, limes, shaddocks, cocoa-nuts, citrons, pomegranates, pine-apples, and melons. Many valuable trees grow on the mountains, such as cedar, *lignumvitæ*, mahogany, and others, which take the finest polish, and are admirably adapted for cabinet-work. The great staples, however, are the sugar-cane and coffee-plant,—the former yielding the threefold produce of sugar, molasses, and rum. Tobacco, ginger, indigo, pimento, and various spices and medicinal drugs are cultivated. The exports from the British West Indies to the United Kingdom alone are of the yearly value of about six millions sterling.

The indigenous animals are in general small, the principal being the agouti (a creature resembling the rat), the armadillo, opossum, raccoon, and monkeys. One animal peculiar to these islands is the land-crab, which is esteemed excellent food. The feathered creation are distinguished by brilliancy of plumage and elegance of form; among them are the parrot in all its varieties, the flamingo, and the humming-bird. In the woods and marshes wild fowl abound in great variety, and of fine flavour. Lizards and different kinds of serpents are not unfrequent; but few of them are noxious.

A momentous change in the social condition of the British West Indies was effected in 1834, when slavery ceased throughout the British dominions, and the sum of 20 millions sterling was given as compensation to the planters. The area of the British West India Islands is about 26,207 square miles; their population is about 979,214, of whom about 75,000 are whites. In 1848, slavery was abolished in the islands belonging to France, having an area of about 1700 square miles, and a population of about 256,000; as well as in the Danish possessions, having an area of about 110 square miles, and a population of about 42,000. In 1869, it was also abolished in the Spanish islands, which have an area of about 47,000 square miles, and a population of about 1,800,000.

#### EXERCISES.

How are the West India Islands situated? What is their area in square miles? What is their population? How many principal



groups are there? Name the first group and the islands of which it consists. What is the chief town of New Providence? Name the second group and its islands. What are the principal towns in the Greater Antilles? Name the third group with its islands. Distinguish the Windward from the Leeward Islands? Name the mountains.

Between what degrees of latitude and longitude do the West India Islands lie? By what name have they been sometimes called? How is the year divided in these islands? When do the first periodical rains set in? How long and at what time of the day do they continue to fall? What kind of weather succeeds? At what hour does the sea-breeze usually spring up? What effect does it produce? Describe the appearance of the nights during this season. When does this state of the weather cease? By what is the steady sea-breeze then succeeded? When do the rains become general? At what season are these islands occasionally visited by hurricanes? When does the weather become serene and pleasant? How long does it continue so? In what respects does the climate in general differ in the low grounds and the mountains?

Enumerate some of the fine fruits of the West India Islands. Mention some of their valuable trees. What are the staple articles of culture? What other articles are to be numbered among their productions? What is the yearly value of the exports to the mother country alone from the islands belonging to Britain? Mention the principal indigenous animals. For what are the feathered creation distinguished? Mention some of the more remarkable birds. What important change was effected in the British West Indies in 1834? What sum was given as compensation to the planters? What are the area and population of the British West India Islands? When did slavery cease in the French and Danish West India islands? What are their area and population? What are the area and population of the Spanish West India islands?

#### DESCRIPTIVE TABLE OF NORTH AMERICA.

**ACAPULCO**, a seaport of Mexico, in the Pacific, with an excellent harbour. Pop. 5000.—16° 50' N. lat. 99° 49' W. long.

**Alaba'ma**, one of the United States, bounded on the E. by Georgia; on the S. by Florida and the Gulf of Mexico; on the W. by Mississippi; and on the N. by Tennessee. The soil is fertile, producing cotton, sugar, wheat, oats, and barley. Area, 50,722 square miles. Pop. 964,201. Montgomery, on the Alabama, is the state-capital. Pop. 8843.

**Al'bany**, the state-capital of New York, United States, situated on the Hudson, at its junction with the Erie Canal. It is a place of great trade. Pop. 62,367.—42, 39 N. 73, 44 W.

**Aleu'tian Islands**, a volcanic group in the N. Pacific, between Cape Ali-

aska and Kamtschatka. The Fox Islands are the most important of the group.

**Alexan'dria**, a town of the United States, state of Virginia, on the Potomac. Pop. 12,654.

**Alias'ka**, a territory of the United States, formerly known as Russian America. It comprehends the extreme north-western region of North America, and a narrow tract of coast extending southward to Simpson River. Area, 510,879 square miles. Pop. 80,000.

**Alias'ka**, a peninsula of the above territory, 350 miles in length, on the N. W. coast, between Bristol Bay and Cook's Inlet.

**Al'leg'hany** or **Appala'chian Mountains**. See Remarks, p. 306.

**Am'herstburg**, a town and fort of

**Ontario, Canada**, on the Detroit, near its entrance into Lake Erie. Pop. 1800.

**An'dover**, a town of Massachusetts, United States. Pop. 4765.

**Anega'da**. See Virgin Isles.

**Anguil'la** or Snake Island, one of the West India Islands, belonging to Britain. Area, 35 square miles. Pop. 2934.

**Ann, Cape**, the north point of Boston Bay, in Massachusetts, United States.—42, 38 N. 70, 34 W.

**Annap'olis**, a seaport of Nova Scotia, on the Bay of Fundy. P. 4529.—44, 42 N. 65. 44 W. See also Maryland.

**Anticos'ti**, an island in the mouth of the river St Lawrence, 125 miles in length by 30 in breadth.

**Antig'ua**, one of the British West India Islands, about 20 miles long, and nearly of the same breadth. The staple articles of export are sugar, molasses, and rum. Area, 108 square miles. Pop. 36,412. St John is the capital. Pop. 14,600.

**Antil'les**, a name given to the West India Islands. The French apply the term to the West Indies generally, exclusive of the Bahamas. See p. 313.

**Aris'pè**, a city of Mexico, in the department of Sonora. Pop. 7600.

**Arizo'na**, a territory of the United States, bounded N. by Nevada and Utah; E. by New Mexico; S. by Mexico; W. by California. Area about 121,000 square miles. A large proportion of the inhabitants are domesticated or partly civilized Indians. The capital is Prescott; pop. 600.

**Arkan'sas**, a large river which rises in the Rocky Mountains, and, flowing S. E., falls into the Mississippi after a course of about 2000 miles.

**Arkan'sas**, one of the United States, bounded on the E. by the Mississippi, which divides it from Mississippi and Tennessee; S. by Texas and Louisiana; W. by the Indian Territory; and N. by Missouri. The region along the lower course of the Arkansas is fertile but swampy; it is covered with dense forests. Area, 52,198 square miles. P. 435,450. Little Rock, on the Arkansas, is the state-capital. P. 3727.

**Athabas'ca**, called also the Lake of the Hills, in British America, is situated about 170 miles S. E. of the Great Slave Lake. It is nearly 200 miles long; at its N. W. extremity is Fort Chip'ewyan, a trading station.

**Au'burn**, a town of New York, United States, containing a large and celebrated reformatory prison. Pop. 15,000.

**Augus'ta**, a town of Georgia, United States, on the Savannah, the great depôt for the cotton of Upper Georgia. Pop. 12,493. See also Maine.

**BACK River** (called also Great Fish River), rises to the N. of Lake Aylmer, near the source of the Coppermine River, and, flowing N. E., falls into a bay of the Arctic Ocean.

**Baf'fin's Bay**, a large gulf, more properly an inland sea, between the N. E. shores of the continent and the W. coast of Greenland, opening into the Atlantic by Davis' Straits, and into the Polar Sea by Lancaster Sound and Barrow's Strait.

**Baha'mas**, a numerous group of islands belonging to Britain, stretching from Florida to St Domingo, on the remarkable sandbanks and coral reefs called the Bahama Banks. They export cotton, fine timber, dyewoods, and salt. The principal islands are New Providence, St Salvador, Long Island, and Crooked Island. Total pop. 35,487. Nassau', the capital of New Providence, is also the seat of government. Pop. 7000.

**Bal'timore**, an important city and seaport of Maryland, United States, situated near the head of Chesapeake Bay. It has one of the finest harbours in America, and carries on a very extensive trade. Pop. 212,418.

**Ban'gor**, a flourishing commercial town of Maine, United States, on the Penobscot. Pop. 16,407.

**Barba'dos**, the most eastern of the British West India Islands, 21 miles in length and 14 in breadth. Besides sugar, the great staple, it exports molasses, ginger, cotton, and arrowroot. Area, 166 square miles. Pop. 152,727. Bridge'town, the capital, is one of the handsomest towns in the West Indies. P. 21,384.—13, 5 N. 59, 41 W.

**Barbu'da**, one of the West India Islands, belonging to Britain; it lies to the N. of Antigua. Pop. 1600.

**Barrow, Point**, the extreme N. W. point of the continent.—71, 23 N. 156, 21 W.

**Barrow's Strait**, a continuation of Lancaster Sound, a broad inlet from Baffin's Bay into the Polar Sea.

**Bath**, a considerable seaport of Maine, United States, at the mouth of the Kennebeck. Pop. 8076.

**Beh'ring's Strait.** See **ASIA**, p. 245.

**Belfast'**, a seaport of Maine, United States, situated on Belfast Bay. Pop. 5520.—44, 27 N. 68, 58 W.

**Belize** (Beleez'), the chief town of the British settlement of Honduras, on the coast of Yucatan, at the mouth of the river of the same name. Pop. of town and settlement, 25,635; of town alone, 5000.—17, 29 N. 88, 8 W.

**Belleisle'**, a small rocky island at the N. E. end of the channel between Labrador and Newfoundland, called the Straits of Belleisle.

**Belle'ville**, a thriving town of Ontario, Canada, on both sides of the river Moira, which falls into the Bay of Quinte. Pop. 7000.

**Ben'nington**, a town of Vermont, United States, at the foot of the Green Mountains. Pop. 4389.

**Bermu'das** or **Somers' Islands**, a group in the Atlantic, about 600 miles E. of S. Carolina, surrounded by coral reefs. They produce arrow-root, cedar, coffee, and cotton. Area, 24 square miles. Pop. 11,451. St George, the largest, has a town of the same name, with a pop. of 3000.

**Booth'ia**, a peninsula in the most northern part of America. It is naked and barren, but contains valuable fur-bearing animals.

**Bos'ton**, the principal city and seaport of Massachusetts, United States, beautifully situated on a peninsula of Massachusetts Bay. It has a secure harbour, with an extensive trade. It is celebrated as the birthplace of Franklin, and the cradle of American Independence; and may be considered the literary capital of the Union. P. 177,840.—42, 21 N. 71, 4 W.

**Bris'tol**, a seaport of Rhode Island, United States, situated on a bay. P. 5271.—A beautiful town of Pennsylvania, on the Delaware, 20 miles above Philadelphia. Pop. 3314.

**British Colum'bia**, a district bounded on the N. by Alaska, Stickeen, and the Simpson River; on the E. by the Rocky Mountains; on the S. by the United States; and on the W. by the Pacific Ocean, Queen Charlotte Sound, and the Gulf of Georgia. It was erected into a British colony in 1858, and extends from 49° to 55° N. lat.; it is about 500 miles long and 400 miles broad, and has an area of about 213,000 square miles. *The climate is very like that of Great Britain, and the soil is rich and well suited for agriculture. There is plenty*

of coal, and gold has been found in great abundance. New Westminster, on the Frazer River, is the capital. Pop. 29,671.

**Brock'ville**, a thriving town of Ontario, Canada, on the St Lawrence, 48 miles east of Kingston. Pop. 5000.

**Brook'lyn**, a town of New York, United States, situated on Long Island, opposite New York. Pop. 350,000.

**Buen Ayre**, a small island of the Caribbean Sea, belonging to Holland. Pop. 3579.

**Buffalo**, a flourishing commercial town of New York, United States, situated at the junction of the Erie Canal with Lake Erie, 20 miles from Niagara, and 523 from New York. Pop. 140,000.—42, 53 N. 78, 55 W.

**Bur'lington**, a town of Vermont, United States, on the E. shore of Lake Champlain; it is the seat of a university. Pop. 7713.—Also a town of Iowa. Pop. 7000.

**CAHAW'BA**, a town of Alabama, United States, at the junction of the Cahawba with the Alabama. P. 1920.

**Califor'nia**, Lower or Old, a narrow peninsula in the Pacific, separated from Mexico by the Gulf of California, 700 miles long, and from 50 to 80 broad. Pop. 8000.

**Califor'nia**, Upper or New, a country on the Pacific, extending from Oregon to the head of the Gulf of California. It formerly belonged to Mexico, but was ceded to the United States by the treaty of 1848. Part of it was, in 1850, formed into a state, having an area of 169,000 square miles, and a population of 379,994. Sacramento is the state-capital. California is traversed from N. to S. by two mountain ridges, the Snowy Mountains and the Rocky Mountains; from the latter the Rio Colorado takes its rise, and, flowing S. W., enters the Gulf of California. The Sacramento, with its tributary the San Joachim, from the N. W., falls into the noble Bay of San Francisco. Valuable gold-mines, along the course of the Sacramento, were accidentally discovered in September 1847. The gold-region extends nearly 500 miles along the branches of the Sacramento and San Joachim rivers.

**Cam'bridge**, a town of Massachusetts, United States, 3 miles from Boston; it is the seat of a university. Pop. 26,060.

**Campeach'y**, a seaport of Yucatan,

on the bay of the same name. Pop. 18,000.—19, 50 N. 90, 33 W.

Can'ada. See Remarks, p. 299.

Can'so, a small island at the N. E. extremity of Nova Scotia, with a cape of the same name.—45, 17 N. 61.0 W.

Cape Bret'on, an island separated from Nova Scotia by the narrow strait called the Gut of Canso. It is about 100 miles in length and 72 in breadth, and is penetrated by a navigable arm of the sea, which divides it nearly into two parts. The climate, like that of Newfoundland, is cold and foggy. The island has valuable coal-mines and fisheries. Pop. 63,083. Sydney, the capital, has a population of 1600.

Cape Bret'on, the eastern point of the island of the same name.—45, 56 N. 59, 50 W.

Cape Cod, the eastern projection of Massachusetts, United States, forming the S. E. point of Massachusetts Bay.—42, 2 N. 70, 4 W.

Cape Hay'tien, formerly Cape Fran'cais, a seaport of Hayti, on its N. coast. P. 12,000.—19, 46 N. 72, 12 W.

Car'ibbee Islands, that portion of the West India Islands extending in a semicircle from Porto Rico to Trinidad.

Caribbe'an Sea, that part of the Atlantic lying between Central and S. America, and the islands of Cuba, Hayti, and Porto Rico.

Caroli'na, North, one of the United States, bounded on the N. by Virginia; W. by Tennessee; S. by Georgia and South Carolina; and E. by the Atlantic. Its gold-mines are productive, but its manufactures and commerce are limited. Area, 45,500 square miles. Pop. 992,622. Raleigh is the state-capital. Pop. 4780.

Caroli'na, South, one of the United States, bounded on the N. by North Carolina; on the W. and S. by Georgia; and on the E. by the Atlantic. For 100 miles inland from the coast the country is low, swampy, and unhealthy; beyond this it is finely diversified with hill and dale, and is fertile and richly wooded. The chief products are cotton and rice. Area, 30,213 square miles. Pop. 703,708. Colum'bia is the state-capital. Pop. 7054.

Catoche', a cape on the N. coast of Yucatan.—21, 31 N. 87, 0 W.

Central America. See Remarks, p. 311.

Cham'plain, Lake, in Vermont, United States, 105 miles in length and 10 in its greatest breadth.

Charles, Cape, at the eastern extremity of Labrador.—52, 20 N. 55, 45 W. Cape Charles, in Virginia, United States, on the N. point of Chesapeake Bay.—37, 10 N. 75, 45 W.

Charles'ton, the principal city and seaport of South Carolina, situated at the head of a bay on a peninsula formed by the Ashley and Cooper rivers. It maintained, during the late civil war, a resolute resistance against numerous attacks by the Federals. Pop. 65,000.—32, 46 N. 79, 57 W.

Charles'town, a town of Massachusetts, near the celebrated Bunker's Hill; it is connected with Boston by a bridge. Pop. 25,063.

Chat'ham, a town of Ontario, Canada, on the river Thames. Pop. 5000.

Ches'apeake, the largest and safest bay on the Atlantic coast of the United States, extending N. about 200 miles from between Cape Charles and Cape Henry, in Virginia.

Chica'go, the largest town and chief seat of trade of Illinois, United States, on Lake Michigan. P. 175,000.

Chihua'hua, a city of Mexico, the capital of the department of the same name, in the vicinity of rich silver-mines. Pop. 14,000.—28, 40 N. 105, 33 W.

Cholu'ta, a city of Mexico, 15 miles W. N. W. of Puebla. Here is an ancient pyramid 177 feet high; each side of its base measures 1423 feet. Pop. 10,000.—19, 0 N. 98, 15 W.

Chud'leigh, Cape, the northern point of Labrador, at the entrance of Hudson's Straits.—60, 25 N. 65, 20 W.

Cinna'ti, the chief town of Ohio, United States, finely situated on the Ohio. It has a college, flourishing manufactures, and is a great emporium of trade. Pop. 186,000.

Cleve'land, a town of Ohio, United States, on Lake Erie. Pop. 60,000.

Co'ban, a town of Guatemala, on a river flowing into the Gulf of Dulce. Pop. 14,000.

Co'bourg, a thriving town of Ontario, Canada, pleasantly situated on the north shore of Lake Ontario. Pop. 5000.

Col'ima, a town of Mexico, capital of the department of the same name. Pop. 31,774.

Colora'do, a territory of the United

States, bounded by Dakota and Nebraska on the N.; by Nebraska and Kansas on the E.; by New Mexico on the S.; and by Utah on the W. Area, about 106,475 square miles. Pop. 34,277. The capital is Golden City. Pop. 2000.

Colum'bia, British. See p. 318.

Colum'bia, a district of the United States, on the Potomac, surrounded by Virginia and Maryland. It is under the immediate jurisdiction of Congress, and contains Washington, the seat of government and capital of the Union. Area, 50 square miles. Pop. 75,080. Columbia is also the name of the state-capital of South Carolina.

Colum'bia or Ore'gon, a large river of North America, rises in the Rocky Mountains, and, after a course of 1000 miles, falls into the Pacific Ocean.

Colum'bus, a city of the United States, capital of Ohio, is pleasantly situated on the east bank of the Scioto River, 90 miles from its mouth. Pop. 18,554.

Comayag'ua, a city of Central America, capital of the state of Honduras. Pop. 18,000.

Connec'ticut, one of the United States, bounded on the N. by Massachusetts; on the W. by New York; on the E. by Rhode Island; and on the S. by Long Island Sound. It has a fertile soil, with considerable trade and manufactures. Area, 4674 square miles. Pop. 460,147. Hart'ford, pop. 29,154, and Newhav'en, pop. 39,267, are the state-capitals.

Connec'ticut, a river of the United States, has its source on the N. borders of Vermont and New Hampshire, and flows S. into Long Island Sound.

Cook's In'let, an arm of the sea on the N. W. coast.

Cop'permene River, discovered by Hearne in 1771; it flows northward into the Arctic Ocean.

Corona'tion Gulf, a large inlet of the Northern Ocean, discovered by Captain Franklin. At its eastern entrance is Point Turnagain.

Corrien'tes, a cape of Mexico, W. coast.—20, 25 N. 105, 43 W.

Cos'ta Ri'ca, a state of Central America, extending from the state of Nicaragua to New Granada, and from the Caribbean Sea to the Pacific. Area, 23,000 square miles. Pop. 120,471. San Jo'sé is the capital. Pop. 20,000.

Cu'ba, the largest of the West India Islands. It is 764 miles in length by 60 of average breadth, and is traversed from E. to W. by a chain of mountains, covered with noble forests. Its soil is very fertile, producing excellent sugar, coffee, and tobacco. It has rich copper-mines. The island enjoys a delightful climate, and hurricanes are rare. Area, 48,489 square miles. Pop. 1,359,238.

Culia'can, a town of Mexico, 90 miles S. E. of Cinaloa. Pop. 12,000.

Curaco'a, an island of the Caribbean Sea, off the N. coast of Venezuela, about 40 miles long and 10 broad. It belongs to the Dutch. Pop. 19,669. Wil'liamstadt, its capital, has a fine harbour. Pop. 7000.

DAKO'TAH, a territory of the United States, is bounded on the N. by British America; E. by Minnesota and Iowa; S. by Nebraska, Colorado, and Utah; W. by Montana, Idaho, and Utah. Area, 240,000 square miles. Pop. 4837. The capital is Yankton.

Dan'ish America or Greenland. See p. 302.

Da'vis' Straits, a narrow sea discovered by Captain John Davis in 1585, when in search of a north-west passage. It connects the Atlantic Ocean with Baffin's Bay.

Del'aware, one of the smallest of the United States, lying along the western coast of a bay of the same name; bounded on the N. by Pennsylvania; and on the W. and S. by Maryland. It produces fine wheat, and has considerable manufactures. Area, 2120 square miles. P. 112,216. Do'ver is the state-capital. P. 1289.

Del'aware, a river of the United States, which is formed by two streams in the state of New York. Separating Pennsylvania from New Jersey, it flows past Philadelphia, and enters Delaware Bay, between Delaware and New Jersey.

Den'ver, the chief commercial emporium of the territory of Colorado, United States, is advantageously situated on the right bank of the South Platte River. Pop. 10,000.—39, 45 N. 104, 50 W.

Desirade', one of the West India Islands, belonging to the French; it lies to the east of Guadeloupe. Pop. 2568.

Detroit (Detroaw'), a city of the United States, formerly the capital of Michigan; it stands on the west

side of the state of Detroit, between the lakes of St Clair and Erie. Pop. 60,000.

Domini'ca, one of the British West India Islands, about 29 miles in length and 9 in average breadth. It produces, coffee, sugar, and timber. Area, 291 square miles. Pop. 25,666. Roseau', the capital, has a population of 5000.

Do'ver, a town of New Hampshire, United States. Pop. 8502. Also the state-capital of Delaware.

Dulce, Gulf of, an inlet of the Caribbean Sea, in the Gulf of Honduras, on the S. of British Honduras.

Duran'go or Victo'ria, a city of Mexico, the capital of the department of Durango. Pop. 14,000.

E'RIE, Lake. one of the great chain of lakes which divides Canada from the United States. It is 250 miles in length and 80 at its greatest breadth, covering an area of 11,000 square miles. It discharges its waters by the Niagara into Lake Ontario. It is subject to violent storms, which, with rocks projecting many miles from the shore, render the navigation dangerous.

FAIR'WEATHER, Mount, a mountain in Aliaska, 14,750 feet above the sea.

Fare'well, Cape, the S. extremity of Greenland.—59, 49 N. 43, 54 W.

Fayette'ville, a commercial town of North Carolina, United States. Pop. 4646.

Fear, Cape, on the coast of North Carolina, at the entrance of Cape Fear River, where there is a dangerous shoal.—33, 54 N. 78, 0 W.

Flat'tery, Cape, on the W. coast of the United States.—48, 20 N. 124, 15 W.

Flor'ida, one of the United States, bounded on the N. by Alabama and Georgia; on the E. by the Atlantic; and on the S. and W. by the Gulf of Mexico and the Strait of Florida. It is a peninsula 385 miles in length, stretching southward between the Gulf of Mexico and the Atlantic. The seacoast and the banks of the rivers are swampy, but grow rice and corn; the interior is hilly, and yields valuable timber. Area, 59,268 square miles. Pop. 140,424. Tallahas'see is the state-capital. Pop. 1932.

Flor'ida Strait or Channel, between Florida, Cuba, and the Bahamas, through which a remarkable current, called the Gulf Stream, from the

Gulf of Mexico, rushes with such force to the N. E. as to be perceptible upon the N. coasts of Europe.

Fox Islands. See Aleutian Islands.

Frank'lin, a town of Missouri, United States, on the Missouri; also the name of other towns in the Union. Pop. 2015.

Frazer River, in British Columbia, rises in the Rocky Mountains, and, after a S. W. course of about 450 miles, falls into the Gulf of Georgia. A rich gold-field was discovered in 1859 at the confluence of the Thomson with the Frazer River.

Fred'erick, a town in Maryland, United States. Pop. 8143.

Fred'ericksburg, a town of Virginia, United States. Pop. 5022.

Fred'erickton, the capital of New Brunswick, situated on the river St John, 65 miles from its mouth. Pop. 6000.—45, 56 N. 66, 45 W.

Fun'dy, a bay which extends 150 miles between Nova Scotia and New Brunswick. At the upper part, where it divides into two arms, the rise of the tides sometimes exceeds 60 feet; while in Verte Bay, on the opposite or St Lawrence side of the isthmus, the rise is not more than 10 feet.

Fu'ry and Hec'la Strait, between Cockburn Island and Melville Peninsula, expanding into the Gulf of Boothia.

GALT, a town of Ontario, Canada, pleasantly situated on the Grand River, 25 miles N. W. of Hamilton. Pop. 2300.

Gal'veston, a seaport of the United States, in the state of Texas, on an island in the Gulf of Mexico. P. 7307.

Gas'pè, a cape of Quebec, Canada, Gaspè Bay, at the mouth of the St Lawrence.—48, 45 N. 64, 12 W.

George'town, a town in the district of Columbia, United States, on the Potomac, near Washington. P. 8733.—A seaport of South Carolina, at the mouth of the Great Pedee. Pop. 1720.

Geor'gia, one of the United States, bounded on the N. by Tennessee and North Carolina; E. by South Carolina and the Atlantic; S. by Florida; and W. by Alabama. Its chief products are cotton, rice, and Indian corn. Area, 58,000 square miles. P. 1,057,286. Mil'ledgeville is the state-capital. Pop. 3500.

Gloucester (Glos'ter), a seaport of Massachusetts, United States, on Boston Bay. Pop. 10,804.

Golden City, the capital of the United States territory of Colorado, near the E. base of the Rocky Mountains. There are valuable gold-mines in the vicinity. Pop. 2000.

Gra'cias a Di'os, Cape, in the N. of Central America, in the state of Honduras.—14, 69 N. 83, 11 W.

Gran'ada, a city in Central America, in the state of Nicaragua, on the S. W. shore of the lake, with a flourishing trade. Pop. 15,000.

Great Bear Lake, in the N. W. of British America. It has an area of about 14,000 square miles, and communicates with Mackenzie River.

Great Slave Lake, in the N. W. of British America, extends about 330 miles from E. to W., with an average breadth of 50 miles.

Greenland. See p. 302.

Grena'da, one of the British West India Islands; its greatest length is 25 miles, its breadth 12 miles. It is finely wooded, and produces sugar, rum, cocoa, and cotton. Area, 133 sq. miles. Pop. 36,955. St George, the capital, has an excellent harbour. Pop. 4000.

Guadalaxa'ra, a city of Mexico, the capital of the department of Xalisco, situated on the Rio Grande de Santiago. Pop. 90,000.—21, 9 N. 103, 4 W.

Guadeloupe (Gadeloop'), one of the West India Islands, belonging to France; it is about 60 miles long and 25 broad, and is divided into two parts by a narrow channel. Pop. 136,602. Basseterre', the capital, has a population of 4900; but Pointe-à-Pitre is the chief commercial town; it has a population of 20,000.

Guanaxua'to, a city of Mexico, the capital of the department of the same name. In the vicinity are numerous silver-mines. Pop. 48,954.—21, 0 N. 100, 55 W.

Guatemala'la, the largest state in Central America; it extends from Yucatan to the Pacific, and is bounded W. by Mexico, and E. by the states of Honduras and San Salvador. Area, 45,747 square miles. Pop. 970,450.

Guatemala'la, New, a city in Central America, the capital of the state of Guatemala, situated on a large plain surrounded by hills. Pop. 40,000.—14, 37 N. 90, 30 W. Old Guatemala, about 25 miles to the S. W., was destroyed by an earthquake in 1774, but has been since rebuilt. Pop. 20,000.

Guay'mas, a seaport of Mexico, on

the Gulf of California. Pop. 3000.—27, 56 N. 110, 18 W.

Guelph, a town of Ontario, Canada, 30 miles N. of Hamilton. Pop. 4500.

HAL'IFAX, the capital of Nova Scotia, situated on the south-east coast. Its noble harbour is the chief naval station of British America. It is the seat of a considerable fishery, and has an extensive trade. Pop. 25,026.—44, 39 N. 63, 37 W.

Ham'ilton, a thriving town of Ontario, Canada, at the W. extremity of Lake Ontario. Pop. 20,000.

Har'risburg. See Pennsylvania.

Hart'ford, a manufacturing town, and, with Newhaven, the joint state-capital of Connecticut, United States, on the river Connecticut, 50 miles from its mouth. Pop. 29,152.

Hat'teras, a dangerous cape of N. Carolina, United States.—35, 14 N. 75, 30 W.

Havan'nah or Havan'a, the capital of Cuba, situated on the N. coast of the island. It is strongly fortified, and its port is the finest in the West Indies. As a commercial city, it is one of the greatest and most flourishing in the New World. Pop. 196,847.—23, 9 N. 82, 22 W.

Hay'ti or St Domin'go, one of the Great Antilles, and, next to Cuba, the largest of the West India Islands, being about 400 miles in length and 150 in its greatest breadth. It has valuable mines. The soil of the plains is exceedingly fertile, and produces excellent timber. The western part of the island formerly belonged to France, but is now a negro republic, with Cape Haytien for its capital; the eastern part formerly belonged to Spain, but is now a republic, with St Domingo for its capital. Pop. 572,000.

Hen'ry, Cape, in Virginia, at the south point of the entrance of Chesapeake Bay.—36, 56 N. 75, 53 W.

Hondur'as, a state in Central America, bounded on the W. by Guatemala; S. by San Salvador and Nicaragua; and N. by the Gulf of Honduras. Area, 38,088 square miles. Pop. 350,000. Comayag'ua is the capital. Pop. 12,000.

Hondur'as, British. See Belize.

Hous'ton, a town of Texas, United States, 60 miles N. W. of Galveston. Pop. 4845.

Hud'son, a city of New York, United States, on the river Hudson, with a good trade. Pop. 10,500.



**Hud'son**, a fine river of the United States, which has its source in the mountains between Lakes Ontario and Champlain, and, flowing southward, falls into the sea at New York, after a course of 325 miles.

**Hud'son's Bay**, a great inland sea. Including its S. extremity, called **James' Bay**, its length from north to south is about 1000 miles, and its greatest breadth 560 miles. It communicates with the Atlantic by **Hudson's Strait**, and on the north with **Baffin's Bay** and the Arctic Ocean. Its navigation is open only during four months in the summer, and is dangerous from the number of shoals, rocks, and islands. The British stations of **Churchill Fort**, **York Fort**, **Albany Fort**, and **Moose Fort**, are all on the western coast.

**Hud'son's Bay Territories**. See **Remarks**, p. 301.

**Hu'ron, Lake**, one of the great lakes which separate Canada from the United States. Its length is 200 miles, its breadth 160, and its mean depth 300 feet. It communicates by straits with **Lake Superior** and with **Lake Michigan** on the W., and by the **Lake of St Clair** and the river **Detroit** with **Lake Erie** on the S. E. Along its northern shore is a chain of richly wooded islands called the **Manitoulin** or **Sacred Isles**.

**I'CY Cape**, on the N. W. coast, the farthest point reached by **Captain Cook**.—70, 20 N. 161, 46 W.

**I'daho**, a territory of the United States, is bounded N. by the British possessions; E. by **Montana** and **Dakotah**; S. by **Nevada** and **Utah**; W. by **Oregon** and **Washington territory**. Area, about 90,000 square miles. P. estimated at 10,000. The capital is **Boisee**. Pop. 2000.

**Illinois (Il'linoy)**, one of the United States, is bounded E. by **Indiana**; N. by **Wisconsin**; S. by the **Ohio**; and W. by the **Mississippi**, which separates it from **Missouri** and **Iowa**. It is for the most part a range of fertile prairies. It has rich lead-mines, abounds in coal and in salt-springs, and has extensive water communication. Area, 55,409 square miles. Pop. 1,711,951. **Springfield** is the state-capital. Pop. 15,000.

**Il'inois**, a river of the United States, which flows 400 miles through **Illinois**, and falls into the **Mississippi** 18 miles above the **Missouri**.

*India'na, one of the United States,*

between **Illinois** and **Ohio**, bounded on the N. by **Michigan**, and on the S. by the **Ohio**, which separates it from **Kentucky**. The soil is rich, resembling that of **Illinois**. Area, 33,809 square miles. Pop. 1,350,428. **Indianap'olis** is the state-capital. Pop. 35,000.

**Io'wa**, one of the United States, formed in 1846, lying W. of the **Mississippi**, and N. of the state of **Missouri**. It is very fertile. Area, 50,914 square miles. Pop. 674,913. **Des Moines** is the state-capital. Pop. 7000.

**Ith'aca**, a town of **New York**, United States, on the S. shore of **Cayuga Lake**. Pop. 6843.

**JACK'SONVILLE**, a town of **Illinois**, United States. Pop. 5528.

**Jamai'ca**, the largest and most valuable of the **British West India Islands**. It lies nearly 100 miles W. of **St Domingo**, and the same distance S. of **Cuba**. It is 150 miles in length by 40 in average breadth. It is traversed from E. to W. by the lofty range of the **Blue Mountains**, covered with majestic forests. The principal exports are sugar, rum, coffee, spices, and fruits. Area, 6400 square miles. Pop. 441,264. **Span'ish Town** is the seat of government. Pop. 6000.

**James' Bay**. See **Hudson's Bay**.

**James' River**, in **Virginia**, United States, rises in the **Alleghany Mountains**, and, flowing eastward, falls into **Chesapeake Bay**.

**Jorul'lo**, a remarkable volcano in the S. of **Mexico**; it rose from the plain to the height of 1640 feet, in 1759; since then many of the small cones have disappeared, while others have changed their form.

**KAN'SAS**, one of the United States. It has the **Indian Territory** and **New Mexico** to the S.; **Missouri** to the E.; **Nebraska** to the N.; and **Utah** to the W. Area, 78,418 square miles. Pop. 150,000.

**Kentuck'y**, one of the United States, bounded N. by the **Ohio**, separating it from **Ohio**, **Indiana**, and **Illinois**; W. by the **Mississippi**, separating it from **Missouri**; S. by **Tennessee**; and E. by **Virginia**. The soil is fertile; wheat, maize, hemp, and tobacco being the chief objects of culture. Area, 37,680 square miles. Population, 1,155,684. **Frank'fort**, on the **Kentucky**, is the state-capital. Pop. 8000.

**Kings'ton**, the principal commerce



cial city and seaport of Jamaica, situated on the N. side of Port Royal Bay. P. 32,000.—17, 58 N. 76, 48 W.

Kings'ton, a strongly fortified town of Ontario, Canada, situated at the entrance of the Rideau Canal, on the N. E. point of Lake Ontario, near its outlet by the St. Lawrence. Pop. 13,743.—44, 18 N. 76, 33 W.

Knox'ville, a town of Tennessee, in the United States, on the Holston. Pop. 6000.

Kotzebue Sound, a large bay in Behring's Straits, discovered by the Russian navigator Kotzebue in 1816.

LABRADOR', a wild and sterile region, consisting of a vast peninsula between Hudson's Bay and the Atlantic, extending from 50° to 61° N. lat., and from 56° to 78° W. long. Its prevailing features are rocks, swamps, and mountains covered with forests. The Moravian missionaries have several settlements, which are inhabited chiefly by the Esquimaux.

Lancaster, a thriving town of Pennsylvania, United States, 70 miles from Philadelphia. Pop. 17,603.

La Paz, a town of Mexico, and the capital of the territory of California. Pop. 500.

Law'rence, a manufacturing town of Massachusetts, United States, situated on the Merrimac river. Pop. 22,000.

Le'on, a city in Central America, formerly the capital of the state of Nicaragua. Pop. 30,000.—12, 25 N. 86, 50 W.

Le'on, Lake of, a lake in Central America, in the state of Nicaragua; it is 32 miles long and 14 miles broad.

Lex'ington, a town of Kentucky, United States, with a college and several manufactures. Pop. 9521.

Litch'field, a town of Connecticut, United States. Pop. 3200.

Lon'don, a town of Ontario, Canada, on the Thames. Pop. 12,000.

Long Isl'and, an island of New York, United States, separated from Connecticut by Long Island Sound. It is about 115 miles in length by 13 of average breadth. Pop. 377,788.

Lookout', Cape, on the coast of N. Carolina, United States, S. of Cape Hatteras.—34, 30 N. 76, 36 W.

Loret'to, a town of Lower California, on the gulf of that name.—26, 0 N. 110, 50 W.

Louisiana, one of the United States, bounded S. by the Gulf of Mexico; W. by Texas; N. by Ar-

kansas; and E. by Mississippi. It comprehends the Delta of the Mississippi, which annually overflows a large extent of country. The soil generally is very rich, producing cotton, sugar, and rice. Area, 41,225 square miles. Pop. 708,000. Baton Rouge, situated on the Mississippi, 140 miles above New Orleans, is the state-capital. Pop. 5428.

Lou'isville, the principal commercial town of Kentucky, United States, on the Ohio, just above the rapids, Pop. 68,033.—38, 18 N. 85, 40 W.

Low'ell, a flourishing town of Massachusetts, United States, at the junction of the Merrimac and the Concord, 20 miles from Boston. It is the chief seat of the cotton manufacture in the United States. Pop. 37,069.

MACKENZIE River, named from its discoverer in 1789, is formed by the union of the Athabasca and the Peace rivers, which have their sources in the Rocky Mountains; flowing northward, it passes through the Great Slave Lake, and falls into the Arctic Ocean, after a course of about 1600 miles.

Maine, one of the United States, bounded on the N. by Canada; on the E. by New Brunswick; on the S. by the Atlantic; and on the W. by New Hampshire and Canada. The soil along the seacoast is fertile, but there are large swamps, and ranges of mountains covered with timber. A great trade is carried on in shipbuilding and the fisheries. Area, 31,766 square miles. Pop. 628,276. Augus'ta, on the Kennebec, is the state-capital. Pop. 7609.

Man'chester, a town of New Hampshire, United States. Pop. 20,107.

Mar'blehead, a seaport of Massachusetts, United States, 15 miles N. E. of Boston. Pop. 7646.

Margari'ta, an island in the Caribbean Sea, belonging to Venezuela. Length, 45 miles; breadth, from 5 to 20 miles. Pop. 15,000. Assump'tion is the capital.

Mariegalante', one of the French West India Islands, to the S. of Guadeloupe. Pop. 12,000.

Martiniq'ue, or Martini'co, one of the French West India Islands. It has three lofty mountains and several fertile valleys. Its greatest length is 50 miles, and its mean breadth about 16 miles. Pop. 133,562. Fort

Royal is the capital. Pop. 11,800.—14, 35 N. 61, 4 W.

Ma'ryland, one of the United States, situated on both sides of Chesapeake Bay, and separated from Virginia by the Potomac. It has large exports as well of iron as of tobacco, flour, and other agricultural products. Area, 11,124 square miles. Pop. 687,034. Annap'olis is the state-capital. P. 4529.

Massachu'setts, one of the United States; bounded on the E. by the Atlantic; on the N. by New Hampshire and Vermont; on the W. by New York; and on the S. by Connecticut and Long Island. It has flourishing manufactures, commerce, shipping, and fisheries. Area, 7800 square miles. Pop. 1,231,065. Bos'ton is the state-capital. Pop. 177,840.

Massachu'setts, a bay of the United States, extending from Cape Ann on the N. to Cape Cod on the S.

Matan'zas, a fortified seaport of Cuba, with a considerable trade. P. 86,102.—23, 0 N. 81, 40 W.

May, Cape, the S. point of New Jersey, at the entrance of Delaware Bay.—38, 56 N. 74, 46 W.

Mazat'lan, a seaport of Mexico, near the entrance of the Gulf of California. Pop. 12,000.—23, 12 N. 106, 22 W.

Mem'phis, a town of Tennessee, on the Mississippi. Pop. 22,625.

Mendoci'no, Cape, on the coast of Upper California.—40, 29 N. 124, 32 W.

Mer'ida, the capital of Yucatan, situated on an arid plain. P. 25,000.—20, 50 N. 89, 40 W.

Mex'ico, the capital city of Mexico, situated in the centre of an elevated plain, surrounded by lofty mountains, with the beautiful lake of Tezcuco in the vicinity. Its streets and squares are spacious, and many of its public edifices are large and handsome. P. 481,796.—19, 25 N. 99, 5 W.

Mex'ico, Gulf of, a large inland sea, communicating by the Florida Channel with the Atlantic, and by the Channel of Yucatan with the Carribean Sea, and on the other sides enclosed by the United States, Mexico, and Yucatan. It is nearly 1200 miles in length from E. to W. with an average breadth of 650 miles.

Michigan (Mish'egan), a large lake of the United States, 360 miles in length, with an average breadth of 60 miles, and navigable for vessels

of any burden. It communicates with the N. W. extremity of Lake Huron, by the Straits of Michillimakinac.

Mich'igan, one of the United States, of which the larger portion is surrounded on three sides by Lakes Erie, St Clair, Huron, and Michigan. The other portion lies to the N. W., and is bounded on the N. by Lake Superior, and on the S. by Lake Michigan and the State of Wisconsin. The soil is rich, and finely wooded. Area, 56,243 square miles. Pop. 1,122,582. Lan'sing is the state-capital. Pop. 3074.

Mid'dlebury, a town of Vermont, with a college. In its vicinity are fine marble quarries. Pop. 2789.

Mid'dletown, a town of Connecticut, on the Connecticut. P. 5182.

Milwau'kie, a flourishing commercial town of Wisconsin, United States; it is situated on a river of the same name, near its entrance into Lake Michigan. Pop. 65,000.

Minneso'ta, one of the United States. It is bounded on the N. by British America; E. by Lake Superior and Wisconsin; S. by Iowa; and W. by Nebraska. Area, 95,274 square miles. Pop. 172,022. St Paul, on the Mississippi, is the state-capital. Pop. 10,401.

Miramichi', a port and river of New Brunswick; the river falls into a bay of the same name, and is noted for the extensive forests on its banks, whence large shipments of timber are made.

Missis'sippi, River. See Remarks, p. 306.

Missis'sippi, one of the United States, bounded on the W. by the great river of the same name, which divides it from Louisiana and Arkansas; on the E. by Alabama; on the N. by Tennessee; and on the S. by Louisiana and the Gulf of Mexico. Though liable to inundation, the soil in general is rich, producing corn, cotton, and tobacco. Area, 47,156 square miles. Pop. 791,396. Jack'son, on Pearl River, is the state-capital. Pop. 4122.

Missou'ri, River. See Remarks, p. 306.

Missou'ri, one of the United States, lying on both sides of the Missouri, and bounded on the E. by the Mississippi, which separates it from Illinois and Kentucky; on the N. by Iowa; on the W. by Kansas and the Indian

Territory; and on the S. by Arkansas. It possesses a fertile soil, and abounds in lead. Area, 67,380 square miles. Pop. 1,182,317. Jefferson City, on the Missouri, is the state-capital. Pop. 3500.

Mistas'sin, a lake of British America, to the N. of the province of Quebec. It is above 250 miles in circuit, is surrounded by mountains, and discharges its waters by the Rupert into James' Bay.

Mo'bile, the principal seaport of Alabama, United States, situated on the Mobile River, with a good trade. Pop. 29,259.—30, 45 N. 88, 25 W.

Montan'a, a territory of the United States, bounded N. by British America; E. by Dakotah; S. by Dakotah and Idaho; W. by Idaho. The surface of the country is mountainous, the soil rich, and the climate invigorating. Area, about 153,000 square miles. The capital is Virginia City, on a tributary of the Jefferson River.

Monte'go Bay, a seaport of Jamaica, on the N. W. side of the island. Pop. 4000.—18, 29 N. 77, 56 W.

Mon'terey, a city of Mexico, capital of the department of New Leon, on the Fernando. Pop. 13,584.—Also a seaport of Upper California, on Monterey Bay. Pop. 1200.

Montgom'ery, a flourishing city of the United States, capital of Alabama. It is situated on the left bank of the Alabama river, and possesses great facilities for communication with the surrounding country. It was in this city that the representatives of the states of South Carolina, Georgia, Alabama, Florida, Mississippi, and Louisiana, assembled, 9th February 1861, and declared themselves independent of the United States—taking, at the same time, the name of "The Confederate States of America." The population of Montgomery is 8843.

Montreal', a city of Quebec, Canada, situated on the S. E. side of the island of Montreal, at the confluence of the St Lawrence and the Ottawa. It has a thriving trade. The tubular bridge here, which carries the Grand Trunk Railway over the St Lawrence, is 1½ mile in length. Pop. 120,000.

Montserrat', a British West India Island, 12 miles long and 7 broad. Area, 47 square miles. Pop. 7654. Plym'outh is the capital.

Morol'a, a city of Mexico, capital

of the department of Michoacan. Pop. 25,000.

Mosqui'tia or Mosquito Territory, a maritime district of Central America, extending along the coast, from Cape Honduras to the river San Juan. Grey Town, at the mouth of the San Juan, is the chief town.

Mountpleas'ant, a town of New York, situated on the Hudson, with a state-prison for the reformation of criminals. Pop. 3323.

NAIN, a town on the coast of Labrador, with a Moravian settlement.

Nantuck'et, a town of Massachusetts, United States, on an island of the same name, 16 miles in length, with an average of 4 in breadth. It is a great seat of the southern whale-fishery. Pop. 6094.—41, 17 N. 70, 6 W.

Nassau'. See Bahamas.

Natch'ez, an important town of Mississippi, United States, situated on the river Mississippi. Pop. 6612.

Nebras'ka, one of the United States, W. of the Missouri, having Kansas on the S.; Utah, Oregon, and Washington, on the W.; British America on the N.; and Minnesota, Iowa, and Missouri, on the E. Area, 122,007 square miles. Pop. 28,836. Omaha, on the Missouri, is the state-capital. Pop. 16,000.

Nel'son, a river of British America, which issues from Lake Winnipeg, and falls into Hudson's Bay.

Ne'vis, a British West India Island, 7 miles long and 6 broad, separated from St Christopher by a narrow channel. Area, 20 square miles. Pop. 9822. Charles'town is the capital. Pop. 1806.

New Al'bany, a town of Indiana, United States, on the Ohio; it has considerable trade. Pop. 18,000.

New Archan'gel. See Sitka.

New'ark, the principal town of New Jersey, United States, beautifully situated at the head of a bay, 9 miles from New York. It has extensive manufactures. Pop. 71,941. 40, 45 N. 74, 10 W.

New Red'ford, a seaport of Massachusetts, United States, with a number of ships engaged in the whale-fishery. Pop. 22,300.

Newbern', a town of North Carolina, United States, with considerable trade. Pop. 5434.

New Bruns'wick, now a portion of the Dominion of Canada, to the N. W. of Nova Scotia, and E. of the United States. The greater part of it is

covered with forests, intersected by numerous rivers and lakes. Area, 27,700 square miles. Pop. 252,047.

New Brunswick, a town of New Jersey, United States, on the Raritan. Pop. 13,500.

Newburyport, a flourishing seaport of Massachusetts, United States, near the mouth of the Merrimac, over which there is here an iron suspension bridge 244 feet long. P. 13,401.

Newfound'land, a large island situated near the entrance of the Gulf of St Lawrence, and separated from the coast of Labrador by the Straits of Belleisle. It is chiefly valuable for the great cod-fishery on its banks and along its shores. Dense fogs render the climate particularly unpleasant. Area, 40,200 square miles. Pop. 122,638.

New Hampshire, one of the United States, bounded E. by Maine, and W. by the river Connecticut, which separates it from Vermont. Although principally devoted to agriculture, its trade, manufactures, and fishery are considerable. Area, 9280 square miles. Pop. 326,072. Concord, on the Merrimac, is the state-capital. Pop. 10,896.

Newhav'en, a seaport, and with Hartford the joint state-capital of Connecticut, United States, situated on an inlet of Long Island Sound. It contains Yale College, a flourishing seminary, and has a good trade. Pop. 39,268.—41, 18 N. 72, 57 W.

New Jer'sey, one of the United States, bounded on the E. by the Atlantic, and on the other sides by New York, Pennsylvania, and Delaware. The soil is various; it has thriving manufactures. Area, 8320 square miles. Pop. 672,031. Tren'ton, on the Delaware, is the state-capital. Pop. 17,221. Jersey City has a population of 29,226.

New Lon'don, a town of Connecticut, United States, on the Thames, with considerable trade. Pop. 10,115.—41, 22 N. 72, 5 W.

New Mex'ico, formerly, as its name implies, a part of Mexico, but erected into a territory of the United States in 1850. It is bounded on the W. by California; on the E. by Texas, the Indian Territory, and Kansas; on the S. by Texas and Mexico; and on the N. by Kansas and Utah. Area, 243,063 square miles. Pop. 93,541. San'ta Fé is the state-capital. Pop. 4635.

New Or'leans, a city of Louisiana, United States, situated on the Mississippi, about 105 miles from its mouth, with an extensive foreign trade. It is built on low marshy ground, and is very unhealthy. Pop. 168,472.—29, 57 N. 90, 6 W.

New'port, a seaport in Rhode Island, United States, with a fine harbour and considerable trade. It is one of the two state-capitals of Rhode Island. Pop. 10,508.—41, 30 N. 71, 10 W.

New Prov'idence. See Bahamas.

New West'minster, on the Frazer River, the capital of British Columbia. Pop. 300.

New York, the most populous and most important of the United States, bounded N. and W. by the St Lawrence and Lakes Ontario and Erie; S. by Pennsylvania and New Jersey; and E. by Vermont, Massachusetts, and Connecticut. Its aspect and soil are equally various. It has a great extent of inland navigation, and its trade and manufactures are flourishing. Area, 47,000 square miles. Pop. 3,880,735. Albany is the state-capital. Pop. 62,368.

New York, the commercial capital of the United States, situated on the S. extremity of Manhattan Island, at the mouth of the Hudson. Many of its public buildings are elegant, and it is distinguished for the number of its benevolent and literary institutions. Its situation and excellent harbour have rendered it the greatest emporium of the New World. Pop. 821,113.—40, 42 N. 74, 1 W.

Niag'ara, River, issues from Lake Erie, and falls into Lake Ontario. It is 35 miles long; its breadth varies from half a mile to a mile and a half. Its cataracts are stupendous: the volume of water precipitated being, it is computed, 100 millions of tons per hour. The fall on the Canadian side is the Great, or, as it is called from its forming a crescent, the Horse-shoe Fall; here the stream, 2100 feet broad, is precipitated over a height of 150 feet. The other, on the United States side, is 1140 feet wide and 162 feet high. A cable suspension bridge of 800 feet span has been erected on the river a little below the cataract.

Niag'ara, a town of New York, United States, defended by a fort. It is in the neighbourhood of the Falls of Niagara. Pop. 6603.

Nicarag'ua, a state in Central America, between the states of San Salvador and Honduras on the W., and that of Costa Rica on the E. Area, 58,167 square miles. Pop. 1,648,894. Managua is the capital. Pop. 10,000.

Nicarag'ua, a town in Central America, on the S. W. shore of the lake of the same name. Pop. 8000. —11, 28 N. 85, 47 W.

Nicarag'ua, Lake. See Remarks, p. 312.

Noot'ka Sound, a bay of the W. coast of Vancouver Island.

Norfolk, a seaport of Virginia, United States, on Elizabeth River, its trade is considerable. P. 14,609. —36, 55 N. 76, 18 W.

Norwich, a town of Connecticut, United States, with considerable manufactures. Pop. 14,047.

No'va Sco'tia, a portion of the Dominion of Canada, connected with New Brunswick by a narrow isthmus, 16 miles across, and separated from Cape Breton Island by the Gut of Canso. Although the soil is in general sterile, there are many fertile districts. It has rich mines of coal and iron. Fish, coal, and timber are the chief articles of export. Area, 18,671 square miles. Population 890,857.

OAX'ACA, a city of Mexico, the capital of the department of the same name, on the Rio Verde. It is a place of considerable trade. Pop. 25,000. —17, 8 N. 97, 16 W.

Ohio, one of the United States, bounded by Michigan and Lake Erie on the N.; by Pennsylvania and Virginia on the E.; by Kentucky on the S.; and by Indiana on the W. In point of beauty, fertility, and climate, it is one of the finest states of the Union. Area, 39,964 square miles. Pop. 2,339,511. Colum'bus is the state-capital. Pop. 18,554.

Ohio, a large river of the United States; it is formed by the union of the Alleghany and the Monongahela at Pittsburg, and, after a S. W. course of 1033 miles, joins the Mississippi 160 miles below the influx of the Missouri.

Oma'ha, a flourishing town of the United States, capital of Nebraska. It is pleasantly situated on the W. bank of the Missouri, and forms one of the principal stations of the Union Pacific Railway. Pop. 16,000. —41, 16 N. 96, 0 W.

Onta'rio, a province of Canada, formerly known as Upper Canada. See Remarks, p. 300.

Onta'rio, the most easterly of the great American lakes, is 180 miles in length by 65 in breadth, and is of great depth. It receives the waters of Lake Erie by the Niagara, and discharges them by the St Lawrence. Steam-vessels constantly ply between the British and American sides. The country along its shores is rich and well wooded.

Or'egon, one of the United States, is situated between the Rocky Mountains and the Pacific Ocean, having California and Utah on the S., Washington on the N., and Nebraska on the E. Area, 102,606 square miles. Pop. 52,464. Salem is the state-capital.

Oriza'ba, a town of Mexico, near the volcanic Peak of Orizaba. Pop. 12,500. —18, 25 N. 96, 35 W.

Ot'tawa, formerly By'town, the seat of government of the Dominion of Canada, situated at the junction of the Rideau Canal with the Ottawa. Pop. 14,669.

Ot'tawa, a river of British America; it forms the principal boundary between the provinces of Ontario and Quebec, and enters the St Lawrence above the island of Montreal, after a course of 800 miles.

PAR'RY, or North Georgian Islands, a group in the Arctic Ocean, to the N. of Melville Sound.

Pascua'ro, a town of Mexico, beautifully situated near the E. shore of the lake of the same name. P. 6000.

Pat'erson, a town of New Jersey, United States, 14 miles from New York; it has great cotton manufactures. Pop. 19,588.

Pennsylva'nia, one of the United States, and, next to New York, the most important in the Union, is bounded N. by New York; E. by the Delaware, which divides it from New Jersey; S. by Delaware, Maryland, and Virginia; and W. by Ohio. With a soil generally rich, it abounds in coal and iron; while its trade and manufactures are extensive and flourishing. Area, 46,000 square miles. Pop. 2,906,370. Har'risburg, on the Susquehannah, is the state-capital. Pop. 18,406.

Penob'scot, a river of Maine, United States, which flows into Penobscot Bay.

Pensaco'la, a seaport of Florida,

United States, on a bay of the Gulf of Mexico. Pop. 4680.

Petersburg, a thriving town of Virginia, United States, on the Appomattox. It was one of the most strongly fortified places held by the Confederates, and was several times attacked by the Federals under General Grant and others, who were always repulsed with great loss, until the decisive battle of April 1, 2, 1865, when the Confederates, under General Lee, were, after a severe and bloody contest, defeated by Grant's army, who entered Petersburg and Richmond the next day. The fall of these two most important strongholds was soon followed by the total collapse of the rebellion. P. 18,266.—37, 13 N. 77, 20 W.

Philadelph'ia, the principal city of Pennsylvania, United States, situated on the Delaware, near its junction with the Schuylkill, 120 miles from the Atlantic. It has a flourishing university, and several literary and scientific institutions. Pop. 565,531.—39, 57 N. 75, 10 W.

Pictou', a seaport of Nova Scotia, on its N. coast, with a safe and capacious harbour. It has a thriving trade in timber, coal, and fish. Pop. 28,785.

Pittsburg, a flourishing town of Pennsylvania, United States, situated at the point where the Alleghany and Monongahela unite in forming the Ohio. It has large iron-works and other manufactures. Pop. 49,220.—40, 28 N. 80, 0 W.

Platte, or Nebraska, a river of the United States, which has its source near that of the Arkansas, and, flowing eastward, joins the Missouri, after a course of about 600 miles.

Plymouth, the earliest settled seaport of Massachusetts, United States, with considerable trade. Pop. 6272.—41, 53 N. 70, 40 W.

Ponchar'train, Lake, in Louisiana, United States; it is 45 miles long, and 20 broad, and communicates both with the Gulf of Mexico and with the Mississippi.

Port Hope, a town of Ontario, Canada, beautifully situated on the N. shore of Lake Ontario. P. 2500.

Portland, the principal city and seaport of Maine, United States, on Casco Bay. Its foreign trade is considerable. Pop. 26,342.—43, 39 N. 70, 15 W.

Port of Spain. See Trinidad, *Island of*.

Port Republicain, or Port-au-Prince, the former capital of the western division of Hayti, at the head of the Bay of Gonaïves. Pop. 21,000.—18, 35 N. 72, 18 W.

Port Royal, a fortified seaport of the Island of Jamaica. It is a station for ships of war, and contains an arsenal and a dockyard. Pop. 15,000.—17, 56 N. 76, 51 W.

Por'to Ri'co (*Spān.* Puerto Rico), one of the Greater Antilles, West Indies, belonging to Spain, lies to the E. of Hayti. Its length is 100 miles; its breadth, 40 miles. It is very fertile, has fine woods and pastures, and is the centre of an extensive commerce. Pop. 583,308. San Ju'an, on the N. coast, is the capital. Pop. 15,367.—18, 29 N. 66, 6 W.

Ports'mouth, a city and seaport of New Hampshire, United States, strongly fortified, with an excellent harbour. Pop. 9335.—43, 4 N. 70, 45 W.

Poto'mac, a river of the United States, which rises in the Alleghany Mountains, and, after forming the boundary between Maryland and Virginia, flows into Chesapeake Bay.

Poy'aïs, a district of Central America, on the Honduras or Mosquito coast.

Prince Ed'ward Island, a British colony, in the Gulf of St Lawrence, separated from New Brunswick and Nova Scotia by Northumberland Strait. It is about 135 miles in length by 18 in mean breadth. It is deeply indented by bays, and is favourably situated both for agriculture and for fisheries. Area, 2173 square miles. Pop. 84,386. Charlottetown is the capital. Pop. 6706.

Prince of Wales, Cape, the western extremity of North America, separated by Behring's Straits from East Cape in Asia.—66, 0 N. 167, 59 W.

Prince Re'gent's Inlet, British America, connecting Barrow's Strait with Boothia Gulf.

Prince William's Sound, a gulf of the Pacific, on the N. W. coast.

Providence, a flourishing seaport, one of the two state-capitals of Rhode Island, United States, situated on both sides of the river of the same name. Pop. 50,666.—41, 50 N. 71, 22 W.

Pueb'la, a city of Mexico, the capital of the department of the same name. Pop. 85,000.—19, 8 N. 98, 4 W.

**Puer'to Prin'cipe**, a town of Cuba, the capital of the central province of the island. Pop. 30,685.—21, 14 N. 77, 30 W.

**QUEBEC'**, a province of Canada, formerly known as Lower Canada. See Remarks, p. 301.

**Quebec'**, the capital of the above province, on the N. bank of the river St Lawrence, about 400 miles from its mouth. It is very strongly fortified, and has an extensive trade. In 1759, it was taken from the French by the British under General Wolfe, who fell in the moment of victory. Pop. 51,109.—46, 49 N. 71, 13 W.

**Queen Char'lotte's Island**, a British island on the N. W. coast, about 150 miles in length and 60 miles broad. It is hilly and well wooded.

**Quereta'ro**, a city of Mexico, the capital of the department of the same name, noted for the beauty of its edifices and its manufactures of woollen cloth. It was here that the Emperor Maximilian was shot, on 19th June 1867. Pop. 29,702.—20, 36 N. 100, 10 W.

**RACE**, Cape, the S. E. extremity of Newfoundland.—46, 30 N. 54, 5 W.

**Ray**, Cape, the S. W. extremity of Newfoundland.—47, 30 N. 59, 30 W.

**Read'ing**, a town of Pennsylvania, United States, on the Schuylkill, with considerable trade and manufactures. Pop. 23,162.

**Red River**, or **Ri'o Rox'o**, rises near the Rocky Mountains, in New Mexico, and, after a S. E. course of 1500 miles, joins the Mississippi about 240 miles above New Orleans.—Also a river which rises in Minnesota, in the United States, and, flowing northwards, falls into Lake Winnipeg, in British America.

**Rhode Island**, one of the United States, the smallest in the Union, between Connecticut and Massachusetts. It is celebrated for its orchards and dairy produce. Area, 1306 square miles. Pop. 174,621. Providence and Newport are the state-capitals. Pop. of Providence, 50,636; of Newport, 10,508.

**Rich'mond**, the picturesquely placed capital of Virginia, United States, on James' River, about 150 miles from its mouth. It was the seat of the Confederate government during the late civil war. Pop. 87,910.—37, 32 N. 77, 23 W.

**Rideau (Rido') Canal**, in Ontario, Canada, extending from Kingston,

on Lake Ontario, to the Ottawa, a distance of 132 miles.

**Ri'o Colora'do**, a river which rises in the Rocky Mountains, and, after a S. W. course of 700 miles, falls into the Gulf of California.—A river of Texas, which rises in the Rocky Mountains, and flows into the Gulf of Mexico.

**Ri'o Grande del Nor'te**, a river which rises in the Rocky Mountains, and, flowing S. E., forms the boundary between Mexico and Texas, and falls into the Gulf of Mexico.

**Roch'ester**, a flourishing city of New York, United States, on the Erie Canal, at the Falls of the Genesee, with a great trade in wheat and flour. Pop. 60,000.—43, 8 N. 77, 51 W.

**Rock'y Mountains**. See Remarks, p. 306.

**SA'BA**, a Dutch West India Island, N. W. of St Eustatius. Pop. 1809.

**Sa'ble**, Cape, the S. W. point of Nova Scotia.—43, 24 N. 66, 3 W. See Tancha Point or Cape Sable.

**Sacramen'to**, a city of the state of California, on the river Sacramento. Pop. 18,000.

**Sack'ett's Harbour**, a town of New York, United States, on the shore of Lake Ontario, strongly fortified. Pop. 2000.—43, 55 N. 76, 30 W.

**St Au'gustine**, a seaport of Florida. Pop. 1914.—29, 51, N. 81, 30 W.

**St Bartho'lomew**, one of the West India Islands, belonging to Sweden, 24 miles in circuit. Pop. 2898. **Gusta'via**, is the capital. Pop. 908.

**St Cath'arine's**, a town of Ontario, Canada, situated on the Welland Canal, celebrated for its medicinal waters. Pop. 5000.

**St Chris'topher or St Kitts**, one of the British West India Islands, 72 miles in circuit. Its principal exports are sugar, molasses, and rum. Area, with Angulla, 103 square miles. Pop. 24,440. **Basseterre'**, is the capital. Pop. 6500.—17, 17 N. 62, 48 W.

**St Croix'**, a river separating New Brunswick from the United States. Also, one of the West India Islands belonging to Denmark. Pop. 42,000.

**St Domin'go**, Island of. See Hayti.

**St Domin'go**, a fortified seaport of the above island, the capital of the eastern division, on its S. E. coast. Pop. 15,000.—18, 29 N. 69, 59 W.

**St Eli'as**, a lofty mountain on the N. W. coast, rising to the height of 17,900 feet above the level of the sea.

**St Eusta'tius**, one of the Dutch



West India Islands, N. W. of St Christopher. Pop. 1936. St Eustatius is the capital.

St John, one of the West India Islands, belonging to the United States, 12 miles in circuit. P. 2560.

St John, the principal seaport of New Brunswick, on the Bay of Fundy, at the mouth of the river St John, which has a course of nearly 600 miles. Pop. 27,317.—45, 15 N. 66, 3 W.

St John, the chief town of Newfoundland, on the S. E. coast. It is strongly fortified, and has a great trade in the cod-fishery. Pop. 30,476.—47, 33 N. 52, 44 W.

St Kitts. See St Christopher.

St Lawrence, River. See Remarks, p. 299.

St Lawrence, Gulf of, a large bay of the Atlantic; its principal entrance, from the ocean, is between Cape Breton and Newfoundland.

St Louis, the principal town of Missouri, United States, situated on the Mississippi, 18 miles below the influx of the Missouri. Pop. 151,780.

St Lucas, a cape of Mexico, the southern extremity of Lower California.—22, 52 N. 109, 50 W.

St Lucia, one of the British West India Islands, between Martinique and St Vincent; it is 32 miles long and 12 broad. Pop. 29,444. Castries is the capital. Pop. 2400.

St Martin, one of the West India Islands. Pop. 6366.

St Peter's, a river of the United States, which flows into the Mississippi a few miles below the Falls of St Anthony.

St Pierre, the principal commercial town and seaport of Martinique, West Indies. Pop. 23,000.

St Salvador or Guanahani Island. See Bahamas.

St Thomas, one of the Virgin Islands, belonging to the United States. Pop. 13,000. St Thomas is the capital. Pop. 10,000.

St Vincent, one of the British West India Islands, 18 miles long and 11 broad. Area, 130 square miles. Pop. 30,128. Kingstown is the capital. Pop. 7000.

Saintes, three small French West India Islands, between Guadeloupe and Dominica. Pop. 1160.

Salem, a flourishing seaport of Massachusetts, United States. Pop. 22,252.—42, 31 N. 70, 54 W. Also the capital of Oregon. Pop. 2500.

Saltillo, a city of Mexico, capital of the department of Coahuila. Pop. 19,898.

Salt Lake City, in Utah Territory, United States; it is the headquarters of the Mormons or Latter-Day Saints. Pop. 8218.

Salvador, San, a state in Central America, between the states of Guatemala and Nicaragua. Area, 7335 square miles. Pop. 600,000.—New San Salvador, on a plateau 2000 feet high, is now the capital, the old capital having been destroyed by an earthquake in 1854.

San Blas, a seaport of Mexico, on an island at the mouth of the Santiago, in the Pacific. Pop. 3000.—21, 32 N. 105, 15 W.

San Francisco, a seaport of the state of California, on an extensive bay. Pop. 120,000.—37, 47 N. 122, 24 W.

San Jose, a city in Central America, the capital of the state of Costa Rica. Pop. 16,000. Also a town of the state of California.

San Juan Bautista, a town of Mexico, capital of the department of Tabasco. Pop. 8000.

San Juan. See Porto Rico.

San Juan, a river of Central America, forming the outlet of the waters of the Lake of Nicaragua into the Caribbean Sea at Port San Juan.

San Luis Potosi, a city of Mexico, the capital of the department of the same name. Pop. 53,000.—22, 2 N. 100, 40 W.

Sandy-Hook, a sandy beach or peninsula of New Jersey, United States, 7 miles S. W. of Long Island.

Santa Cruz or St Croix (Croaw'), one of the Virgin Islands, West Indies, belonging to Denmark; it is 20 miles long and 6 broad. Pop. 42,000. Christianstadt is the capital. Pop. 5000.

Santa Fe, the capital of New Mexico, United States, with a considerable trade. Pop. 4635.

Santiago, a seaport of Cuba, on the S. E. side of the island, with a fine harbour. Pop. 36,752.

Savannah, a river of the United States, forming the boundary between Georgia and South Carolina, and falling into the Atlantic.

Savannah, the principal seaport of Georgia, United States, on the Savannah. Pop. 22,292.

Shawneetown, a town of Illinois, on the Ohio. Pop. 1115.



**Sit'ka** or **New Archangel**, the capital of the United States territory of **Alaska**. Pop. 1000.

**Sono'ra**, a town of **Mexico**, in the department of the same name. P. 6000.

**Span'ish Town**. See **Jamaica**.

**Spring'field**, a thriving town of **Massachusetts**, United States, on the **Connecticut**. Pop. 30,000.

**Sta'ten Island**, belonging to **New York**, United States, 14 miles long and 5 broad, and divided from **Long Island** by the **Narrows Strait**.

**Supe'rior, Lake**, the largest of the great American lakes, and the greatest body of fresh water on the globe. Its length is 355 miles, its breadth 160 miles; its mean depth is 988 feet; its surface is 630 feet above the level of the sea. It has numerous islands; it receives 220 rivers and streams, and discharges its waters by **St Mary's Strait** into **Lake Huron**.

**Susquehan'nah**, a river of the United States, which has its source in **Lake Otsego**, flows through **Pennsylvania**, and enters the head of **Chesapeake Bay**.

**Syr'acuse**, a town of **New York**, United States, celebrated for the manufacture of salt. Pop. 33,000.

**TAMPI'CO**, a seaport of **Mexico**, on the **Gulf of Mexico**. Pop. 15,000.—22, 15 N. 97, 52 W.

**Tan'cha**, Point, or **Cape Sa'ble**, the southern extremity of **Florida**, United States.—25, 5 N. 81, 8 W.

**Taun'ton**, a manufacturing town of **Massachusetts**, United States, on the **Taunton**. Pop. 15,376.

**Ten'nessee**, one of the United States, bounded N. by **Kentucky** and **Virginia**; W. by **Arkansas**; S. by **Mississippi**, **Alabama**, and **Georgia**; and E. by **North Carolina**. It ranks among the most fertile states, and is distinguished for its picturesque scenery. Area, 45,600 square miles. Pop. 1,109,847. **Nash'ville**, on the **Cumberland River**, is the state-capital. Pop. 45,000.

**Ten'nessee**, a river of the United States, formed by the union of the **Holston** and the **Clinch**, near **Knoxville**; after a circuitous course it joins the **Ohio**, 50 miles above the confluence of that river with the **Mississippi**.

**Tep'ic**, a town of **Mexico**, on the summit of a mountain, 25 miles E. of **San Blas**. Pop. 10,000.

**Tex'as**, formerly a province of **Mexico**, and an independent state from 1836 to 1845, when it was an-

nexed to the United States, and admitted into the Union. It is bounded on the W. by the **Rio Grande del Norte**, which separates it from **Mexico**. Area, 237,504 square miles. P. 604,215. **Ans'tin**, on the **Rio Colorado**, is the state-capital. Pop. 3494.

**Tezcu'co**, a city of **Mexico**, on a plain E. of the lake of the same name. Pop. 9000.

**Three Riv'ers**, a town of **Quebec**, Canada, situated at the confluence of the **St Maurice** and the **St Lawrence**. Pop. 6058.

**Tlascal'a**, a town of **Mexico**, capital of the department of the same name, once a populous and important city. Pop. 5000.

**Toba'go**, a **British West India** Island, N. E. of **Trinidad**, 28 miles long and 7 broad. Area, 97 square miles. Pop. 15,410. **Scarborough** is the capital. Pop. 3000.

**Tope'ka**, the capital of **Kansas**, United States, on the S. bank of the **Kansas river**, and on the **Union Pacific Railway**. Pop. 3000.

**Toron'to**, a city of **Ontario**, Canada, situated near the head of **Lake Ontario**, 184 miles above **Kingston**, with an excellent harbour. Pop. 44,821.—43, 39 N. 79, 36 W.

**Torto'ls**, one of the **Virgin Isles**, **West Indies**, belonging to **Great Britain**; it is 12 miles long and 4 broad. Pop. 8600.

**Trinidad'**, with the exception of **Jamaica**, the largest of the **British West India** Islands, being 50 miles long by 34 miles broad. It is separated from the continent of **S. America** by the **Gulf of Paria**, and is distinguished for its fertility, scenery, and magnificent forests. Area, 2020 square miles. Pop. 84,438. Port of **Spain**, on the W. coast, is the capital. Pop. 11,693.—10, 38 N. 61, 32 W.

**Trinidad'**, a seaport of **Cuba**, on the S. coast of the island. Pop. 14,436.—21, 40 N. 80, 21 W.

**Troy**, a flourishing town of **New York**, United States, on the **Hudson**, 6 miles above **Albany**. Pop. 39,235. 42, 44 N. 73, 40 W.

**U'TAH**, erected into a territory of the United States in 1850, is bounded on the N. by **Oregon**; on the W. by **California**; on the S. by **New Mexico**; and on the E. by **New Mexico**, **Kansas**, and **Nebraska**. Area, 128,835 square miles. Pop. 40,295.

**U'tica**, a flourishing town of **New York**, United States, on the **Mohawk**,

where the Erie Canal joins that river. Pop. 22,528.—43, 6 N. 75, 21 W.

**VAL'LADOLID**, a town of Yucatan. Pop. about 15,000.

**Vancouver Island**, a British settlement on the N. W. coast. It is 270 miles long and 75 broad, covered with immense woods. Estimated area, 16,000 square miles. Victoria is the capital. Pop. 25,000.

**Ve'ra Cruz**, the principal seaport of Mexico, capital of the department of the same name. It is situated on the Gulf of Mexico. Pop. 8228.

**Ver'mont**, one of the United States, bounded on the W. by New York; on the E. by New Hampshire; on the S. by Massachusetts; and on the N. by Canada. The centre is traversed by parallel ranges of the Green Mountains, which enclose many fertile valleys. Area, 10,212 square miles. Pop. 315,116. Montpel'ier is the state-capital. P. 3000.

**Vicks'burg**, a city and port of entry, Mississippi, United States, is situated on the Mississippi river, 400 miles above New Orleans. It was captured from the rebels by General Grant, after 48 days' siege, July 4, 1863. Pop. 4600.

**Virgin'ia**, one of the United States, the richest and most powerful of all the southern states, is bounded on the N. by Pennsylvania and Maryland; on the E. by Maryland, the Bay of Chesapeake, and the Atlantic; on the S. by North Carolina and Tennessee; and on the W. by Kentucky and Ohio. It is traversed by ranges of the Alleghanies. The soil is various, but excellently adapted for agriculture. Area, 61,352 square miles. Pop. 1,596,079. Rich'mond is the capital. Pop. 37,910. In 1862, the authorities of Virginia having declared for secession, the western part of the state, which still adhered to the central government, was erected into a separate state, and admitted into the Union in 1863, under the name of Western Virginia. The capital is Wheeling, on the Ohio.

**Vir'gin Isles**, a numerous group in the West Indies, to the E. of Porto Rico. Pop. 52,000. Those in the possession of Britain are Tortola, Virgin Gorda, Anegada, etc. Area, 144 square miles. Pop. 6051.

**WA'BASH**, a river of the United States, which rises on the W. border of Ohio, separates Indiana from Illinois, and joins the Ohio 100 miles

above its confluence with the Mississippi.

**Wash'ington**, the capital of the United States, situated in the district of Columbia, on the Potomac, about 120 miles from its junction with Chesapeake Bay. Pop. about 150,000.—38, 53 N. 77, 1 W. Also a territory of the United States, bounded on the N. by British America; on the E. by Nebraska; on the S. by Utah and California; and on the W. by the Pacific. Area, 176,141 square miles. Pop. 11,548. Olym'pia is the capital of the territory. Pop. 350.

**Welland Canal**, in Ontario, Canada, 42 miles long, connects Lake Erie and Lake Ontario.

**Wheel'ing**, the capital of Western Virginia, United States, on the Ohio. Pop. 22,500.

**Will'iamsburg**, a town of New York, situated on Long Island. Pop. 50,000.

**Wil'mington**, the principal town of Delaware, United States. Pop. 25,000.

**Win'nipeg**, a large lake of British America, N. W. of Lake Superior. Length, 240 miles; breadth, 55 miles.

**Wiscon'sin**, one of the United States, bounded on the N. by Lake Superior and Michigan; on the E. by Michigan; on the S. by Illinois; and on the W. by Minnesota and Iowa. The soil is fertile, and abounds in valuable minerals. Area, 53,924 square miles. Pop. 775,873. Mad'ison is the state-capital. Pop. 6611.

**XALAPA** (Jal'apa), a city of Mexico, 50 miles W. N. W. of Vera Cruz. Pop. 12,000.—19, 40 N. 96, 50 W.

**YAR'MOUTH**, a thriving seaport of Nova Scotia, on the west coast. Pop. 15,446.—43, 50 N. 66, 5 W.

**York Fort**, the most important station or factory of the Hudson's Bay Company, on the W. shore of Hudson's Bay.

**Yu'catan**, a peninsula belonging to Mexico, projecting 360 miles from the continent between the Gulf of Mexico and the Caribbean Sea, and separated from the island of Cuba by a channel 120 miles broad. Area, 79,500 square miles. Pop. 668,623.

**ZACATE'CAS**, a city of Mexico, capital of the department of Zacatecas, in the neighbourhood of rich silver-mines. Pop. 26,000.

**Zanes'ville**, a manufacturing town of Ohio, United States. Pop. 9229.

## SOUTH AMERICA

Is bounded N. by the Caribbean Sea; W. by Costa Rica and the Pacific Ocean; S. by the Southern Ocean; E. by the Atlantic Ocean. Its area is estimated at about 6,500,000 square miles. Its population is supposed to be about 20,000,000.

Divisions.	Chief Towns.
Colombia or New Granada.....	} BOGOTA, Popayan, Panama, Cartagena.
Venezuela.....	
Ecuador.....	CARACCAS, La Guayra, Maracaybo, Cumana.
Guiana.....	QUITO, Guayaquil, Cuenca.
Brazil.....	GEORGE TOWN, Paramaribo, Cayenne.
	RIO JANEIRO, Bahia, Pernambuco, Maranh.
Peru.....	LIMA, Callao, Cuzco, Gnamanga, Arequipa.
Bolivia.....	CHUQUISACA, La Paz, Potosi, Cochabamba.
Paraguay.....	ASSUMPTION.
La Plata or the Argentine Republic }	BUENOS AYRES, Cordova, Mendoza.
Uruguay or Banda Oriental.....	
	MONTE VIDEO.
Chili.....	SANTIAGO, Valparaiso, Coquimbo.
Patagonia.....	PUNTA ARENAS, Port St Julian.
Falkland Islands.....	PORT LOUIS.

**CAPES.**—St Roque, Frio, St Maria, St Antonio, Horn.

**GULFS, BAYS, AND STRAITS.**—Gulf of Darien, Gulf of Venezuela or Maracaybo, Gulf of Paria, the estuary of the Amazon or Maranon, Rio Para, Bay of All Saints, the estuary of the La Plata, Gulf of San Matias, Gulf of St George, Strait of Magellan, Strait of Le Maire, Gulf of Penas, Gulf of Guayaquil, Bay of Panama.

**ISTHMUS.**—Panama or Darien.

**MOUNTAINS.**—Andes or Cordilleras, Parimè Mountains, Mountains of Brazil.

**LAKES.**—Maracaybo, Titicaca.

**RIVERS.**—Amazon or Maranon, La Plata, Orinoco, Magdalena, Essequibo, Para or Tocantins, San Francisco, Colorado, Madeira, Rio Negro, Paraguay, Parana, Uruguay.

**ISLANDS.**—Margarita, Pearl Islands, Galapagos Islands, Marajo or Joannes, Juan Fernandez, Chiloe, Tierra del Fuego, Staten Island, Falkland Islands, South Georgia, South Orkney, South Shetland.





## REMARKS.

South America extends from  $11^{\circ} 20'$  N. to  $56^{\circ}$  S. lat., and from  $35^{\circ}$  to  $81^{\circ} 30'$  W. long. Its length, from N. to S., is about 4500 miles; its greatest breadth, from E. to W., about 3000 miles.

In no part of the world are the features of nature bolder or more marked than in South America. Its mountains, its rivers, and its plains, are on a scale of unusual magnificence. The gigantic Andes are the longest unbroken range of lofty summits on the globe. They extend for more than 4000 miles, from the Strait of Magellan to the Isthmus of Panama, and rise far above the region of perpetual snow, enclosing table-lands whose general elevation is 6000 feet above the level of the ocean. Cotopaxi, one of the loftiest, and the most dreaded of all the volcanoes of the Andes, is described by Humboldt as a perfect cone, covered to an enormous depth with snow, which shines with a dazzling splendour at sunset. Chimborazo, whose summit is 21,440 feet above the level of the sea, was at one time supposed to be the loftiest of the Andes; but it is now known to be lower than the peaks of Aconcagua, 23,910, Sahama, 22,350, Parinacota, 22,030, Gualateiri, 21,960, and Pomarape, 21,700 feet.

The mountains and table-lands of Tibet may surpass those of South America; but its streams are unrivalled. The Andes contain the sources of the two greatest rivers in the world. The Amazon, Marañon, or Orellana, which is navigable for above 2000 miles, is composed of the united waters of the Ucayali and Tunguragua; and is swelled in its course by numerous affluents, which are in themselves majestic rivers. It rolls nearly eastward through a space of about 4000 miles, expanding, before it reaches the Atlantic, under the equator, into an estuary 180 miles wide. Next to it in magnitude is the La Plata, formed by the union of several large streams, of which the most important are the Parana and the Paraguay. At Buenos Ayres, 200 miles from its mouth, it is about 30 miles broad; and, after a southerly course of nearly 2350 miles, it pours its waters into the Atlantic by a magnificent estuary, 150 miles wide. The Orinoco, a much smaller stream, issues from a small lake in the Parimè Mountains, and, after winding round them, pursues a northerly direction. It is increased by many tributaries, when, bending eastward, it rolls along with great force and rapidity, until it enters the Atlantic to the south of *Trinidad*, by about fifty channels, after a course of 1480

miles. It is navigable for about 1000 miles from its mouth, and in the beginning of its course forms a remarkable communication by the Cassiquiari with the Rio Negro, a tributary of the Amazon.

In South America the climate varies with the elevation no less than with the latitude. Under the equator the lower limit of perpetual snow is at the height 15,800 feet. The vegetable productions of different regions of the globe are found in regular succession, as the traveller ascends from the level of the ocean to the summit of the Andes. Between the tropics, cassava, cocoa, maize, plantains, indigo, sugar, cotton, and coffee are cultivated from the level of the sea to the height of from 3000 to 5000 feet. There, too, oranges, pine-apples, and other delicate fruits, grow luxuriantly.

Great fertility is the general character of the soil in South America, and its magnificent rivers and manifold internal resources would appear to mark it out as capable of sustaining a vast population. Under the thralldom of the old governments of Spain and Portugal, the colonists seemed scarcely aware of the advantages of their situation; and since they succeeded in establishing free governments, endless and violent contests among themselves have prevented them from making much progress.

South America is rich in minerals. Gold is found in New Granada, Bolivia, Ecuador, Peru, Chili, La Plata, and Brazil. Diamonds and other precious stones abound in Brazil. The silver-mines of Peru are very rich, and Chili has mines of silver, lead, sulphur, and copper. There are mines of iron, sulphur, antimony, tin, lead, copper, and quicksilver, in Brazil; but the pursuit of the precious metals appears to have diverted attention from other mining speculations.

On 13th August 1868, a most disastrous earthquake occurred in South America, principally in Peru and Ecuador, destroying whole towns, and causing great loss of life.

#### EXERCISES.

What are the boundaries of South America? What is its area in square miles? What is the estimated amount of its population? Name its divisions. What are the chief towns of New Granada? of Venezuela? of Ecuador? of Guiana? of Brazil? of Peru? of Bolivia? of Paraguay? of La Plata? of Chili? of Patagonia? of the Falkland Islands? What are the principal capes of South America? What are its gulfs, bays, and straits? Mention its *Isthmus*? Name its mountains, lakes, rivers, and islands.

Between what degrees of latitude and longitude does South America extend? What are its length and breadth? What is the character of its physical features? What is remarkable about the Andes? What is their extent? What is the height of the tablelands which they enclose? Describe Cotopaxi. What are the heights of Chimborazo and Aconcagua? In what is South America unrivalled? Which is the greatest of its rivers? Of what streams is it composed? What is the length of its course, and its width before reaching the Atlantic? What is the next river in magnitude? What are the most important of the streams which unite to form it? What is its width at Buenos Ayres, and at its mouth? What river is next to these in magnitude? Where does it rise? How is it connected with the Amazon? What is the length of its course?

With what does the climate of South America vary? What is the lower limit of perpetual snow under the equator? What plants are cultivated between the tropics from the level of the sea to the height of from 3000 to 5000 feet? What is the general character of the soil in South America? By what circumstances does it seem to be marked out as capable of sustaining a vast population? What has prevented the colonists from availing themselves of their advantages? In what states of South America are gold-mines found? Where are diamonds abundant? What rich mines are found in Peru? What are the principal mines in Chili? Name the states which suffered most from the earthquake in 1868.

## COLOMBIA, OR NEW GRANADA,

Is bounded W. by Costa Rica and the Pacific Ocean; N. by the Caribbean Sea and Venezuela; E. by Venezuela; S. by Brazil, Ecuador, and the Pacific Ocean. Its area is about 515,235 square miles. Its population is about 2,363,054.

States.	Chief Towns.
Panama.....	Panama, David, Chagres, Aspinwall.
Bolivar.....	Cartagena.
Magdalena.....	Santa Martha.
Santander.....	Pamplona.
Antioquia.....	Antioquia, Medellin.
Boyaca .....	Tunja, Socorro.
Cundinamarca.....	BOGOTA, or SANTA FE DE BOGOTA.
Cauca.....	Popayan.

ISLANDS.—Pearl Islands, Coiba.

ISTHMUS.—Daríen or Panama.

CAVES.—Mala, Corrientes.



**BAYS AND GULF.**—Gulf of Darien, Bay of Panama, Bay of Choco.

**RIVER.**—Magdalena.

**MOUNTAINS.**—The northern termination of the Andes.

**REMARKS.**

Colombia, or New Granada, extends from  $2^{\circ}$  S. lat. to  $12^{\circ} 20'$  N. lat., and from  $68^{\circ}$  to  $83^{\circ}$  W. long. Its length, from north to south, is about 1000 miles; its greatest breadth, from east to west, is about 1050 miles.

The western portion of the state is traversed from north to south by parallel ridges of the Andes, which have their northern termination in the Isthmus of Panama. Through the valleys between these ridges, the Magdalena and its tributary the Cauca flow northwards to the Caribbean Sea.

The climate in the lower regions is damp, hot, and unhealthy; but the table-lands, where most of the towns are placed, have an equable and agreeable atmosphere. The numerous forests yield large quantities of ebony, mahogany, cedar, logwood, caoutchouc, and sarsaparilla. The plants chiefly cultivated are cotton, indigo, coffee, sugar-cane, cacao, cinnamon, maize, and the plantain (which is the staple food of the great mass of the people). There are numerous herds of cattle; but agriculture on the whole is in a very backward state. Commerce is more prosperous, and has received a considerable impulse from the railway lately made across the Isthmus of Panama.

The country abounds in mineral wealth. It yields gold, silver, platinum, copper, tin, lead, and iron. Coal is found near the capital; and diamonds, sapphires, emeralds, and other precious stones, occur in several places.

The more remarkable wild animals are the tapir, the jaguar, the puma, the ant-eater, the sloth, the cayman or alligator, the gymnotus or electrical eel, and several kinds of serpents, some of them of great size.

When the Spanish colonies in South America threw off the yoke of the mother country in 1821, New Granada, Venezuela, and Ecuador, formed themselves into the republic of Colombia. This republic was dissolved in 1832, when the states of which it had consisted became independent republics. In 1858, New Granada was divided into eight republics, under a federal government, which has its seat at Bogota. The prevailing religion is the Roman-catholic.

## EXERCISES.

How is New Granada bounded? What is its area? What is its population? What are the confederated states which it contains? What are their chief towns? Where is the seat of the federal government? Name the islands belonging to the New Granadian Confederation. Name the isthmus, the capes, the gulf, the bays, the river, and mountains.

Between what degrees of latitude and longitude does the country lie? What are its length and breadth? By what mountain-ridges is it traversed, and in what direction? Where do these mountains terminate on the north? What is the course of the Magdalena river?

What kind of climate has New Granada? What are the chief productions of the forests? What are the plants chiefly cultivated? What railway has lately been made? What metals are found in the country? Where does coal occur? Name the more remarkable wild animals.

Of what states did the republic of Colombia consist? When was it dissolved? When was New Granada divided into confederated states? What is the prevailing religion?

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VENEZUELA

Is bounded W. by Colombia or New Granada; N. by the Caribbean Sea; E. by Guiana; S. by Brazil. Its area is 430,000 square miles. Its population is 2,200,000.

ISLAND.—Margarita.

GULFS.—Venezuela or Maracaybo, Paria.

LAKE.—Maracaybo.

RIVER.—Orinoco.

## REMARKS.

Venezuela extends from  $1^{\circ} 40'$  to  $12^{\circ} 10'$  N. lat., and from  $60^{\circ}$  to  $73^{\circ}$  W. long. Its length, from east to west, is about 900 miles; its breadth, from north to south, about 800 miles.

It is traversed by the great river Orinoco, which flows through vast plains, called *llanos*, covered with savannas and forests. The climate, like that of New Granada, is hot and unhealthy in the low grounds, but cooler and more agreeable in the table-lands. The agricultural products and wild animals are nearly the same as in New Granada, but cattle are more numerous, finding inexhaustible pastures in the *llanos* of the Orinoco.

Gold, found at one time in great quantities, no longer repays the labour of search; but mines of silver, tin, and copper are still wrought. Asphalt and petroleum abound in the neigh-

bourhood of Lake Maracaybo; there are coal-pits in several places, and abundance of rock-salt.

Venezuela was long a Spanish colony. On achieving its independence in 1821, it joined New Granada and Ecuador in forming the republic of Colombia. In 1832, this state was dissolved, and Venezuela became an independent republic. The seat of government is at Caraccas, which, like several other towns in the republic, has frequently suffered from earthquakes. The Roman-catholic is the prevailing religion.

#### EXERCISES.

What are the boundaries of Venezuela? What is its area? What is its population? Name its island, gulfs, lake, and river. Between what degrees of latitude and longitude does it extend? What are its length and breadth?

By what river is it traversed? What name is given to the plains through which that river flows? What is the climate of the country? Are cattle numerous? What mines are now wrought? What useful substances abound in the neighbourhood of Lake Maracaybo? Are there any coal-pits?

Of what European state was Venezuela long a colony? Of what republic did it become a part when it threw off the yoke of the mother country? When was this republic dissolved? What did Venezuela then become? What is its capital? What is the prevailing religion?

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### ECUADOR

Is bounded N. by Colombia or New Granada; W. by Peru and the Pacific Ocean; S. by Peru; E. by Brazil. Its area is 219,000 square miles. Its population is 1,300,000.

ISLANDS.—Galapagos.

CAPE.—San Francisco.

GULF.—Guayaquil.

MOUNTAINS.—Chimborazo, Cotopaxi, and other peaks of the Andes.

RIVERS.—Marona, Chambira, and other tributaries of the Amazon or Maranon.

#### REMARKS.

Ecuador, or the Equator (so called from its capital lying almost under the line), extends from 6° 10' S. lat. to 2° 20' N. lat., and from 69° 20' to 80° 30' W. long. Its length, from east to west, is about 800 miles; its breadth, from north to south, about 600 miles.

The western portion of the state is traversed from south to north by the Andes. Among their more remarkable peaks are Chimborazo, which rises to a height of 21,440 feet above the sea, and the great volcanoes of Cotopaxi, Antisana, and Pichincha, which are from 16,000 to 19,000 feet above the sea. The eastern portion of the republic is watered by the numerous tributaries of the Amazon or Marañon. The zoology and agricultural products of Ecuador are nearly the same as those of New Granada. Like that state, it has numerous forests, which supply large quantities of ebony, mahogany, cedar, dye-woods, caoutchouc, and sarsaparilla. It abounds in minerals, yielding gold, silver, lead, quicksilver, and sulphur.

Ecuador revolted from the dominion of Spain in 1821. Along with New Granada and Venezuela, it formed the republic of Colombia until 1832, when that state being dissolved, Ecuador became an independent republic. Its capital is Quito, built in a ravine on the side of Pichincha, at a height of 9542 feet above the sea. It has a delightful climate, but has often suffered from earthquakes, like most other towns in the republic. The prevailing religion is the Roman-catholic.

#### EXERCISES.

How is Ecuador bounded? What is its area? What is its population? Name its islands, cape, gulf, mountains, and rivers. Whence does it take its name? Between what degrees of latitude and longitude does it lie? What are its length and breadth? By what mountains is it traversed in the west? What are their more remarkable peaks? By what streams are the eastern districts of the country watered? What are its agricultural products? What productions do its forests yield?

When did Ecuador revolt from the dominion of Spain? Of what republic did it then become a part? When was this republic dissolved? What did Ecuador then become? What is the capital, and how is it placed? What is the prevailing religion?

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### GUIANA

Is bounded N. by the Atlantic Ocean; E. by Brazil and the Atlantic Ocean; S. by Brazil; and W. by Venezuela. Its area is about 163,560 square miles. Its population is about 238,855.

Divisions.	Chief Towns.
British Guiana.....	George Town, New Amsterdam.
Dutch Guiana.....	Paramaribo, Amsterdam.
French Guiana.....	Cayenne.

**MOUNTAINS.**—Parimè Mountains.

**LAKE.**—Amucu.

**RIVERS.** — Essequibo, Demerara, Berbice, Surinam, Maroni.

**REMARKS.**

The country now generally known by the name of Guiana extends from  $0^{\circ} 40'$  to  $9^{\circ}$  N. lat., and from  $51^{\circ}$  to  $61^{\circ}$  W. long. Its length, from east to west, is about 710 miles; its breadth, from north to south, about 560 miles. Formerly the name had a much wider application, being extended to the whole region which lies to the north of the Amazon and the Rio Negro, and to the east of the Casiquiare and the Orinoco. The greater part of this territory is now included within the empire of Brazil and the republic of Venezuela, and is distinguished by the names of Brazilian Guiana and Venezuelan Guiana.

The country to which the name of Guiana is now commonly restricted is low and flat towards the seashore, and here the soil is rich and fertile. Inland it rises by a succession of tablelands to the *sierras* or mountain-ranges which divide it from Brazil. The climate is cooler than in most places within the tropics, being refreshed by the trade-winds, by the sea-breezes, and by the rainy seasons, of which there are two on the sea-coast, and but one in the interior. Vegetation is exceedingly luxuriant, some of the forest-trees growing to the height of a hundred and fifty feet. The plant chiefly cultivated is the sugar-cane; coffee is also raised in considerable quantities; and cotton, tobacco, rice, maize, wheat, plantains, and pepper are grown. Gentian and other medicinal plants abound; and this is the native country of the large water-plant called the *Victoria Regia*. The staple exports are sugar, rum, molasses, coffee, spices, and drugs.

British Guiana is the western and largest, French Guiana the eastern and smallest, of the three divisions of Guiana. Dutch Guiana, which lies in the middle, has an area of about 60,000 square miles. The area of French Guiana is about 27,560 square miles. British Guiana has an area of about 76,000 square miles, and contains three settlements—Berbice, Demerara, and Essequibo. Most of it formerly belonged to Holland, but was conquered by Great Britain in 1803. The capital is George Town, near the mouth of the river Demerara.

**EXERCISES.**

What are the boundaries of Guiana? What is its area? What

is its population? What are its divisions? What are the chief towns in each division? Name its mountains, lake, and rivers.

Between what degrees of latitude and longitude does the country extend? What are its length and breadth? To what region did the name of Guiana at one time apply? What is the character of the country now called Guiana? What is its climate? To what height do some of its forest-trees grow? What is the plant chiefly cultivated? What other crops are grown? Of what great water-plant is this the native country? What are the staple exports?

How is British Guiana situated? What is its area? What settlements does it contain? To what country did it formerly belong? When was it acquired by Great Britain? What is the capital? What is the area of French Guiana? What is the area of Dutch Guiana?

## BRAZIL

Is bounded N. by Colombia or New Granada, Venezuela, Guiana, and the Atlantic Ocean; E. by the Atlantic Ocean; S. by Uruguay or Banda Oriental; W. by La Plata or the Argentine Republic, Paraguay, Bolivia, Peru, and Ecuador. Its area is 3,100,104 square miles. Its population is 10,014,000.

ISLANDS.—Caviany, Santa Catharina, Marajo or Joannes, Fernando de Noronha, Martin Vaz.

CAVES.—Cape de Norte, St Roque, Branco, St Thomas, Frio.

BAYS, GULFS, ETC.—Estuary of the Amazon or Marañon, Rio Para, estuary of the Maranhão, All Saints Bay.

LAKE.—Dos Patos.

RIVERS.—Amazon or Marañon, Tocantins, Paranaíba, San Francisco, Rio de Janeiro.

MOUNTAINS.—Mountains of Brazil, Sierra do Espinhaço, Sierra do Mar.

### REMARKS.

The empire of Brazil extends from 33° 45' S. lat., to 4° 30' N. lat., and from 34° 47' to 72° W. long. Its length, from east to west, is about 2600 miles; its breadth, from north to south, about 2450 miles.

The northern and western portions of this vast region are occupied by the great plains which lie along the banks of the Amazon and the Parana, and their many tributaries. The eastern districts are traversed from north to south by parallel mountain-ranges, rising from 5000 to 7000 feet above the level

of the sea. The climate is warm, but in general healthy and agreeable. In the north, and in the valley of the Amazon, the air is hot and moist; but elsewhere, especially on the heights and table-lands, the temperature is much cooler.

Vegetation is luxuriant in the extreme. No nobler forests are to be found anywhere than on the banks of the Amazon. They yield endless supplies of mahogany, rosewood, logwood, and the hard red wood called *brazo*, from which it has been supposed that the country received its name. The sugar-cane, the coffee-plant, the cotton-plant, tobacco, wheat, maize, and rice are cultivated. The cassava-plant furnishes the staple food of the great body of the lower classes; and a sort of holly, indigenous to the country, supplies a kind of tea called *matte*, very generally used by all classes. Agriculture has made little progress; but the vast *llanos* or natural pastures support immense herds of wild cattle, which are hunted for their hides. Of the wild animals, the more remarkable are the sloth, the ant-eater, the armadillo, the tapir, the alligator, the rattlesnake, the boa-constrictor, and the humming-bird. The great number and variety of insects are one of the chief annoyances of the country.

The diamond-mines of Brazil are the most productive in the world; and other precious stones are found, especially amethysts and rock-crystals. Gold, silver, copper, and iron occur in several places.

Commerce is gradually extending, but manufactures are very backward. The chief exports are cotton, sugar, coffee, hides, logwood, hard woods, gums, drugs, and diamonds. There are many excellent harbours, and railways have been introduced.

Brazil was discovered by the Portuguese in the year 1500, and was soon afterwards colonized by them. It became independent in 1822, when the government was vested in a hereditary emperor (sprung from the royal family of Portugal), a senate elected for life by the emperor, and a representative chamber chosen by the people. The Roman-catholic religion is that of the state, but other forms of worship enjoy partial toleration. Education, literature, and the arts, are sadly neglected.

#### EXERCISES.

How is Brazil bounded? What is its area? What is its population? Name its islands, capes, bays, gulfs, and estuaries. What lake, rivers, and mountains does it contain?

Between what degrees of latitude and longitude does it lie? What are its length and breadth? What is the character of its northern and western districts? What is the character of its eastern districts? What is its climate? What woods do its forests supply? What are the plants chiefly cultivated? What plant furnishes the staple food of the great body of the lower classes? What is *matte*? Are there many cattle? Name the more remarkable wild animals. What is one of the chief annoyances of the country? Are its diamond-mines productive? What other precious stones are found in it? What are its chief metals? Name its chief exports. Has it any railways?

When and by whom was Brazil discovered? From what is it supposed to have taken its name? When did it become independent? What is its form of government? What is the religion of the state? Is there any toleration for other forms of worship? In what condition are education, letters, and the arts?

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## PERU

Is bounded N. by Ecuador; W. by the Pacific Ocean; S. by Bolivia; E. by Bolivia and Brazil. Its area is 502,760 square miles. Its population is about 2,865,000.

CAPE.—Blanco.

BAYS.—Ferrol, Guarmey, Pisco, Pisagua.

LAKE.—Titicaca.

RIVERS.—Ucayali and its tributaries; New Maranon.

MOUNTAINS.—The Andes.

### REMARKS.

Peru extends from 8° 30' to 22° S. lat., and from 69° to 81° 15' W. long. Its length, from south-east to north-west, is about 1500 miles; its extreme breadth, from east to west, about 580 miles.

The Andes, traversing the whole country from south-east to north-west, divide it into three regions. The Coast or Western region, about sixty miles in width, lying between the Andes and the Pacific, is a dry and barren tract, in the lower portions of which rain rarely falls. The Central or Mountain region, a table-land about 12,000 feet above the sea, enjoying a cool and moist climate, contains most of the towns and villages. The Eastern region is watered by the tributaries of the Amazon, which flow through large plains covered with forests.

The country has long been famous for its mineral riches. Little gold is now found in it; but its mines of silver and mer-



cury are among the most productive in the world, and it yields also copper, tin, iron, and coal. Guano is imported from Peru in large quantities into the United Kingdom, for the purposes of manure. Among the animals indigenous to the country are the alpaca and llama. Sheep and cattle were introduced by the Spanish colonists. Agriculture, manufactures, and commerce are still imperfectly developed, the exports being chiefly raw materials, such as ores and metals, furs, skins, hides, wool, guano, bark, cotton, and cochineal.

Peru, when first visited by the Spaniards in 1530, was, with the exception of Mexico, the most civilized country in the New World. After its conquest by Pizarro, it continued to be subject to Spain until 1825, when it became an independent republic. The executive government is in the hands of a President, chosen by the people, once every four years, with a ministry of his own appointment, and a Council elected by the legislature, which consists of two houses, a Senate and a Representative Chamber. The Roman-catholic religion is the only one either professed or tolerated.

#### EXERCISES.

What are the boundaries of Peru? What is its area? What is its population? Name its cape, bays, lake, rivers, and mountains. Between what degrees of latitude and longitude does it lie? What are its length and breadth?

By what mountains is the country traversed, and in what direction? What is the character of the Coast or Western region? Of the Central or Mountain region? Of the Eastern region? Where are most of the towns and villages placed?

For what has Peru been long famous? Are its mines of silver and mercury productive? What other metals does it yield? Has it any coal? What manure is exported from Peru to Great Britain? Name two of the animals indigenous to the country. By whom were sheep and cattle introduced? What are the chief exports?

When and by what European nations was Peru first visited? What was its condition then? By whom was it conquered? When did it become independent? What is its form of government? What is the only religion tolerated?

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### BOLIVIA

Is bounded W. by the Pacific Ocean and Peru; N. by Peru and Brazil; E. by Brazil and Paraguay; and S. by Chili and La Plata or the Argentine Republic. Its area is estimated at 400,000 square miles. Its population is 1,987,352.

**BAYS.**—Morena, Lavata.

**LAKES.**—Titicaca, Uros.

**RIVERS.**—Guapore (one of the affluents of the Marañon or Amazon) and its tributaries; Desaguadero; Pilaya (one of the affluents of the Paraguay) and its tributaries.

**MOUNTAINS.**—The Andes.

**REMARKS.**

Bolivia, or Upper Peru, extends from  $10^{\circ}$  to  $23^{\circ}$  S. lat., and from  $58^{\circ}$  to  $70^{\circ} 40'$  W. long. Its greatest length, from north to south, is about 1100 miles; its greatest breadth, from east to west, about 800 miles.

The western and middle districts are traversed by the Andes, which here reach a height of more than 20,000 feet. Two of their peaks are active volcanoes—Gualateiri, 22,000 feet, and Sahama, 22,350 feet, above the sea-level. Between the Andes and the Pacific is the desert of Atacama, a narrow strip, where rain is almost unknown. To the east of the Andes are large plains, watered by the tributaries of the Amazon and the Parana. The climate varies with the height of the place above the sea and its distance from the equator, so that although nearly the whole country is within the tropics, not more than a half of it has a tropical climate.

The mineral wealth of Bolivia is greater than that of any other state of South America. The silver-mines of Potosi are only less productive than those of Pasco in Peru. The country yields also gold, mercury, tin, lead, antimony, copper, and iron. The lower ranges of the Andes, and the great plains which lie to the east of them, are covered with forests, which supply many valuable kinds of timber, fruit, and drugs. Among the cultivated plants are maize, rice, barley, oats, potatoes, cotton, sugar-cane, tobacco, and indigo. *Matte*, or Paraguay tea, grows in one department, and the hot inland plains produce a plant called the *coca*, which the natives chew in large quantities. The tapir, the leopard, and the jaguar, and several kinds of amphibious reptiles, are the more remarkable wild animals.

Bolivia, formerly a part of Peru, became an independent republic in 1825, when it took the name of Bolivia in honour of Bolivar, the great champion of South American independence. The executive government is exercised by a President elected for life. The legislature consists of three chambers. The Roman-catholic is the prevailing religion.

## EXERCISES.

How is Bolivia bounded? What is its area? What is its population? Name its bays, lakes, rivers, and mountains.

Between what degrees of latitude and longitude does it extend? What are its length and breadth? By what mountains are its western and central districts traversed? Name two of their peaks which are volcanoes, and state their height. What is the character of the country between the Andes and the Pacific? By what streams are the plains to the east of the Andes watered? How does the climate vary?

In what does Bolivia surpass every other state of South America? Are there any silver mines richer than those of Potosi? What other metals does the country yield? Where are there forests, and what do they produce? What are the plants chiefly cultivated? What is the *coca*? Name the more remarkable wild animals.

When did Bolivia become independent? From whom does it take its name? By what other name is it known? By whom is the executive government exercised? How many legislative chambers are there? What is the prevailing religion?

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PARAGUAY

Is bounded W. by La Plata, or the Argentine Republic, and Bolivia; N. by Brazil; E. by Brazil and La Plata; and S. by La Plata. Its area is about 73,000 square miles. Its population is 1,337,431.

RIVERS.—Paraguay, Parana.

## REMARKS.

Paraguay extends from 21° to 27° 20' S. lat., and from 54° to 58° 40' W. long. Its length, from north to south, is about 450 miles; its greatest breadth, from east to west, about 230 miles.

The country is hilly where it borders on Brazil, level in the centre, and swampy in the south-west. Except in the higher grounds, the climate is hot, and in some places damp. Great part of the soil is covered with forests of trees of great value. The herb *matte*, or Paraguay tea, grows in abundance, and is used by the people in large quantities.

The country was colonized by the Spaniards in 1535. The Jesuits planted their first missions in 1608, and in no long time acquired an ascendancy among the inhabitants, which lasted till 1768, when they were expelled from the territory. Paraguay joined in the rising against the Spanish dominion in 1811, and in 1814 became an independent republic, with Dr Francia for its dictator. During his dictatorship the country was closed

against strangers. On his death in 1840, the government passed into the hands of a sort of junta; it is now nominally vested in a president. At present (1869) a severe contest is being waged between Paraguay and Brazil.

## EXERCISES.

How is Paraguay bounded? What is its area? What is its population? Name its rivers.

Between what degrees of latitude and longitude does it extend? What is the character of the country? What is its climate? What herb grows in abundance? When and by whom was the country colonized? When did the Jesuits plant their first missions? When did their ascendancy terminate? When did the country become independent? What marked the dictatorship of Dr Francia? In whom is the government now vested?

## LA PLATA,

OR

## THE ARGENTINE REPUBLIC.

Is bounded N. by Bolivia; W. by Chili; S. by Patagonia; and E. by the Atlantic, Uruguay or the Banda Oriental, Brazil, and Paraguay. Its area is about 826,800 square miles. Its population is about 1,465,000.

CAPIES.—San Antonio, Corrientes.

BAYS, GULFS, ETC.—Estuary of the Rio de la Plata; Bahia Blanca.

LAKES.—Guanacache, Silverio, Bevedero, UrreLauguen, Porongos.

RIVERS.—Paraguay and its tributaries; Parana and its tributaries; Rio de la Plata; Colorado or Mendoza; Negro or Cusu.

## REMARKS.

La Plata, or the Argentine Republic, extends from 22° to 41° S. lat., and from 54° to 72° W. long. Its greatest length, from north to south, is about 1350 miles; its greatest breadth, from east to west, about 900 miles.

The country, with the exception of the hilly frontier along the Andes, on the west, forms two vast plains, only a few feet above the sea-level. The *Pampas*, on the south, are a treeless level, where rich pastures alternate with tracts covered with huge thistles, and with salt lakes. The desert of *El Gran Chaco*, in the north, extends from 18° to 28° S. lat., and from 58° to 63° W. long.: the southern portion is an arid waste, but the nor-

thern is covered with grass. The climate is for the most part hot and dry. The country suffers occasionally from the want of rain, and the *Pampas* are visited by violent hurricanes and thunder-storms called *pamperos*.

Coal is found in the south-west, and salt abounds in many places; but the country is not rich in minerals. Maize, wheat, rice, barley, tobacco, indigo, cotton, and sugar-cane are cultivated, but little attention is given to agriculture. *Matte*, or Paraguay tea, the algaroba-tree, the cactus, and other useful plants, grow wild. The *Pampas* afford pasture for vast herds of cattle and horses. Among the wild animals are the puma, the jaguar, the tapir, the armadillo, the llama, the alpaca, and the carpincho or water-hog. There are scarcely any manufactures, and commerce is still in its infancy. The exports are chiefly raw produce, such as tallow, bones, skins, hides, wool, and furs.

The country threw off the yoke of Spain in 1810. It is now divided into fourteen states under a federal government, consisting of a President and two chambers. The prevailing religion is the Roman-catholic, but other forms of worship are tolerated.

#### EXERCISES.

What are the boundaries of La Plata? By what other name is it known? What is its area? What is its population? Name its capes, estuary, and bays. What are its lakes and rivers?

Between what degrees of latitude and longitude does it extend? What are its length and breadth? What is the physical character of the country? Describe the *Pampas*. Where is *El Gran Chaco*? What is its character? What is the climate? From what does the country occasionally suffer?

Is coal found in La Plata? What plants are cultivated? Where do vast herds of cattle and horses find pasture? Name some of the wild animals. What are the chief exports?

When did the country throw off the yoke of Spain? Into how many states is it now divided? What is the form of government? What is the prevailing religion? Are other forms of worship tolerated?

#### URUGUAY, OR THE BANDA ORIENTAL,

Is bounded W. by La Plata, or the Argentine Republic; N. by Brazil; E. by the Atlantic; and S. by the Rio de la Plata. Its area is 73,538 square miles. Its population is 240,965.

CAPE.—Santa Maria.

**BAY OR GULF.**—Estuary of the Rio de la Plata.

**RIVERS.**—Uruguay, Negro.

**REMARKS.**

Uruguay, or the Banda Oriental, extends from 30° to 35° S. lat., and from 52° to 58° W. long. Its length, from north to south, is about 360 miles; its breadth, from east to west, about 330 miles.

Near the coast the country is flat and bare of wood; inland it is rugged, and in some parts hilly, the heights and ravines being covered with forests. The climate is, on the whole, temperate and healthy, although moist. The soil is not unfertile, but little care has been bestowed upon its cultivation. More attention is paid to the rearing of cattle and horses. The exports of the country are raw produce, such as tallow, hides, and horns.

Uruguay formerly belonged to Spain, and had its name of *Banda Oriental* from being the eastern boundary of the Spanish dominions in South America. When Brazil had achieved its own independence, it attempted to subjugate Uruguay; but the attempt failed, and the country became an independent republic in 1828. It is governed by a President, elected by the people once in every four years, with two legislative chambers.

**EXERCISES.**

How is Uruguay bounded? By what other name is it known? Name its cape, estuary, and rivers. Between what degrees of latitude and longitude does it extend? What are its length and breadth? What is the character of the country near the coast, and inland? What kind of climate has it? To what is more attention paid than to the cultivation of the soil? What are the chief exports?

To what European state did Uruguay formerly belong? Why was it called *Banda Oriental*? When did it become independent? How is it governed?

**CHILI, OR CHILE,**

Is bounded W. by the Pacific Ocean; N. by Bolivia; E. by La Plata, or the Argentine Republic; and S. by Patagonia. Its area is 139,335 square miles. Its population is 1,676,243.

**ISLANDS.**—Chiloè, Juan Fernandez.

**BAY.**—Salado.

**MOUNTAINS.**—The Andes.

## REMARKS.

Chili, or Chile, extends from  $23^{\circ}$  to  $43^{\circ} 20'$  S. lat., and from  $69^{\circ}$  to  $74^{\circ}$  W. long. Its length, from north to south, is about 1400 miles; its greatest breadth is about 190 miles.

It is a long narrow strip lying between the Pacific Ocean and the Andes, which here attain their greatest height in the peak of Aconcagua, 23,910 feet above the sea-level. The country is hilly, being intersected by numerous spurs of the Andes, enclosing fertile valleys watered by streams from the mountains. The climate is mild and healthy, although in the northern district there is scarcely any rain, and elsewhere it falls only during some of the winter months,—that is, from June to September. Earthquakes are frequent, and occasionally very destructive.

Chili is peculiarly rich in minerals, yielding gold, silver, copper, mercury, tin, zinc, manganese, arsenic, and antimony. There is plenty of coal, but not of the best sort. Among the cultivated plants are beans, potatoes, maize, wheat, barley, and hemp. There is abundance of figs, olives, grapes, and other fruits. Of the wild animals, the most remarkable is the puma or American lion. The country is perhaps the most prosperous of all the South American states. It has a great extent of seacoast, with many good harbours. Railways have been introduced, and trade is flourishing.

Chili was invaded by the Spaniards after the conquest of Peru. The colonists threw off the yoke of Spain in 1818, when the country became an independent republic. It is governed by a President, elected by the people once in every five years, with two legislative chambers. The Roman-catholic religion is that of the state, and the public celebration of any other form of worship is forbidden.

Besides her territory on the mainland, and the islands of Chiloè and Juan Fernandez, Chili claims all Patagonia lying to the westward of the crest of the Andes, together with the neighbouring islands. She has established two colonies in this region—Llanquihue, on the mainland, opposite to the island of Chiloè; and Magellanes, on the Strait of Magellan.

## EXERCISES.

What are the boundaries of Chili? What is its area? What is its population? Name its islands, bay, and mountains.

Between what degrees of latitude and longitude does it extend? What are its length and breadth? What is its physical character?

What is the name of the highest of the Andes of Chili? What is its height? What sort of climate has Chili? Are earthquakes frequent?

In what is Chili peculiarly rich? Name the metals which it yields. Has it any coal? Name some of the plants and fruits cultivated. What is the most remarkable of the wild animals? Are any of the South American states more prosperous than Chili? Has it any railways?

When and by whom was Chili colonized? When did the colonists throw off the yoke of the mother country? What is the form of government? What is the religion of the state? Is the public celebration of other forms of worship permitted? To what territory does Chili lay claim? What colonies has she established?

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## PATAGONIA

Is bounded N. by Chili and La Plata or the Argentine Republic; W. by the Pacific Ocean; S. by the Strait of Magellan; and E. by the Atlantic Ocean. Its area is estimated at about 350,000 square miles. Its population is supposed to be about 120,000.

ISLANDS.—Tierra del Fuego, Staten Island, Cape Horn, Desolation Land, Madre de Dios Archipelago, Wellington Island, Chonos Archipelago.

CAPIES.—Point Desire, Cape Horn, Cape Froward, Cape Gloucester, Cape Pillar.

PENINSULAS.—San Josef, Tres Montes.

BAYS, GULFS, AND STRAITS.—Gulf of San Matias, Camerones Bay, Gulf of St George, Port San Julian, Port Santa Cruz, Strait of Magellan, Strait of Le Maire, Gulf of Penas.

RIVERS.—Santa Cruz, Chico, Chupat.

MOUNTAINS.—The Andes.

### REMARKS.

Patagonia extends from 38° 45' to 55° 58' S. lat., and from 62° 10' to 74° W. long. Its length, from north to south, is about 1100 miles; its greatest breadth, from east to west, about 550 miles.

The country is still imperfectly known to Europeans. It is traversed through its whole extent from north to south by the Andes, which divide it into two widely different regions. The narrow strip between the Andes and the Pacific is hilly and thickly wooded. The territory to the east of the Andes is flat



and barren. There are numerous herds of wild cattle and horses; and pumas, armadilloes, guanacoës, wolves, and foxes abound. The natives, a tall and well-formed race, were described by the early voyagers as giants. They have been allowed to keep undisturbed possession of the country, with the exception of the region to the west of the Andes, which, with the neighbouring islands, has recently been claimed by Chili. See above, p. 350.

#### EXERCISES.

What are the boundaries of Patagonia? What is its estimated area? What is its supposed population? Name its islands, capes, and peninsulas. What are its bays, gulfs, and straits? What are its rivers and mountains?

Between what degrees of latitude and longitude does it extend? What are its length and breadth? By what mountains is it traversed, and in what direction? What is the physical character of each of the two regions into which the country is divided? Name some of the wild animals. What is the character of the natives?

### THE FALKLAND ISLANDS.

THE Falkland Islands, about two hundred in number, are situated in the South Atlantic Ocean, about 300 miles N.E. of Tierra del Fuego. Their area is estimated at about 13,000 square miles. Their population is 621. They belong to Great Britain, and were erected into a colony in 1833. The neighbouring seas abound in fish, seals, and whales.

#### DESCRIPTIVE TABLE OF SOUTH AMERICA.

ACONCA'GUA, one of the Andes of Chili; the highest mountain in the New World, being 23,910 feet above the sea.	feet high, and has considerable trade and manufactures. Pop. 38,000.—16° 24' S. lat. 71° 54' W. long.
Alago'as, a city of Brazil, in the province of the same name. Pop. 12,000.	Argentine Republic. See p. 349.
All Saints, Bay of, a large and commodious bay of Brazil, on the coast of Bahia, containing several fertile islands.	Assump'tion or Asun'cion, the capital of Paraguay, on the river of that name. Pop. 21,000.—25, 24 S. 57, 45 W.
Am'azon or Mar'anon River. See Remarks, p. 335.	BAHI'A or San Sal'vador, a large commercial city and seaport of Brazil, situated at the entrance of the noble Bay of All Saints. It was once the capital of the empire, and, with the exception of Rio Janeiro, is the largest city in South America. Pop. 125,000.—13, 0 S. 38, 31 W.
An'des or Cordil'eras. See Remarks, p. 335.	Ban'da Oriental'. See Ur'uguay.
Arequi'pa, a city of Peru, the capital of a province, on the Chila. It stands at the foot of a volcano 20,000	Berbie's, a district of British Gu-

ana, S. E. of Demerara. Pop. 27,000. New Amsterdam, at the mouth of Berbice River, is the capital. Pop. 3460.

Blan'co, Cape, the S. point of the Gulf of Guayaquil.—4, 20 S. 81, 15 W.

Bogota', or Santa Fe de Bogota', the capital of the republic of Cundinamarca, and the seat of government of the New Granadian Confederation, is situated in a luxuriant plain, 8720 feet above the sea, and surrounded by grand mountain-scenery. Pop. 43,000.—4, 35 N. 74, 10 W.

Bolivia, or Upper Peru. See p. 346.

Brazil'. See p. 343.

Bue'nos Ay'res, one of the states of the Argentine Republic; it stretches along the Atlantic Ocean from Patagonia to the mouth of the Rio de la Plata. Area, about 83,615 square miles. Pop. 350,000.

Bue'nos Ay'res, a maritime city, the capital of the Argentine Republic, situated on the S. shore of the Rio de la Plata. It was founded by the Spaniards in 1585, is well fortified, and has a great trade. Pop. 140,000.—34, 35 S. 58, 22 W.

CALLA'O, a seaport of Peru, with an excellent harbour. It is the port of Lima, from which it is six miles distant. P. 20,000.—12, 4 S. 77, 14 W.

Came'ta, a flourishing town of Brazil, in the province of Para, at the mouth of the Tocantins. Pop. 20,000.

Carac'cas, the capital of Venezuela, in a fertile valley; it has a good trade. Simon Bolivar, the great champion of South American Independence, was born here in 1780. Pop. 50,000.—10, 30 N. 67, 4 W.

Cartage'na, the capital of the republic of Bolivar, in the New Granadian Confederation, with a fine harbour and naval arsenal. Pop. 10,000.—10, 25 N. 75, 84 W.

Caxamar'ca, a city of Peru, in the province of Truxillo; here, in 1533, Atahualpa, the last of the Incas, was put to death by Pizarro. Pop. 7000.

Caxoei'ra, a town of Brazil, in the province of Bahia, a mart for the produce of the gold-mines. P. 15,000.

Cayenne', a district of Guiana, belonging to the French, bounded on the W. by the colony of Surinam. It is extremely unhealthy, being low, swampy, and covered with forests. Area, about 35,080 square miles. Pop. 24,951. Cayenne, the capital, is situated on an island, at the mouth of a river, both of the same name. Pop. 6000.

Cha'gres, a seaport of New Granada, on the N. side of the Isthmus of Panama.—9, 18 S. 79, 59 W.

Chi'li. See p. 351.

Chi'loè, a cluster of islands at the S. extremity of Chili. Chiloe, the largest, is 120 miles long and 40 broad. The soil is fertile; the air is damp, but the climate is healthy. Pop. 61,586.

Chimbora'zo, a mountain of Ecuador, one of the loftiest of the Andes, being 21,424 feet above the level of the sea. In 1802, Humboldt and Bonpland ascended it to an elevation of 19,798 feet.

Chuquisa'ca or Sucre, the capital of Bolivia, on the Cachimayo. Pop. 23,979.—19, 3 S. 64, 30 W.

Cochabam'ba or Oropesa, a handsome town of Bolivia, situated in a fruitful valley. It has a fine palace and a large cathedral. It has manufactures of glass and cotton. Pop. 40,678.—17, 21 S. 65, 43 W.

Colom'bia, an extensive region, formerly the Spanish viceroyalty of New Granada and the Caraccas, now divided into the republics of New Granada, Venezuela, and Ecuador. See p. 337.

Concep'tion, a seaport of Chili, on a fine bay. Pop. 10,000.—36, 44 S. 72, 56 W.

Copia'po, a seaport of Chili, on a river of the same name. Pop. 5200.—27, 20 S. 71, 2 W.

Coquim'bo, a seaport of Chili, the capital of a province abounding in gold, silver, and copper. Pop. 6000.—29, 54 S. 71, 25 W.

Cordil'lera, the Spanish name of a mountain-chain, frequently applied to the Andes.

Cordo'va, a city of the Argentine Republic, the capital of a province; it has considerable manufactures. Pop. 25,000.—31, 26 S. 63, 58 W.

Cotopax'i, a volcanic mountain of Ecuador, 34 miles S. E. of Quito. It is a perfect cone, rising 18,875 feet above the level of the sea, and is the most beautiful of the Andes.

Cuen'ca, a city of Ecuador, the capital of a province of the same name. Pop. 20,000.—2, 53 S. 79, 13 W.

Cuma'na, a thriving seaport of Venezuela, the capital of the province of Cumana, on a gulf of the Caribbean Sea. Pop. 8000.—10, 27 N. 64, 11 W.

Cuya'ba, a town of Brazil, capital of the province of Matto Grosso, on

a river of the same name. It has an active trade in diamonds, of which there are rich mines in its neighbourhood. Pop. 10,000.

Cuz'co, a city of Peru, formerly the capital of the Incas, and held sacred by the Peruvians. It retains traces of its ancient splendour. It is 11,400 feet above the sea. Pop. 45,000.—13, 30 S. 72, 4 W.

DA'RIEN, an extensive gulf of the Caribbean Sea, on the north coast of the Isthmus of Panama or Darien.

Demera'ra, a district of British Guiana, between Berbice and Essequibo. Pop. 50,259.

ECUA'DOR or Equator. See p. 340.

Essequibo, a district of British Guiana, bordering on Venezuela. Pop. 21,494.

Essequibo, a river of British Guiana, which rises in the Parimé Mountains, and flows through magnificent forests. After a course of 450 miles, it falls into the Atlantic.

FALK'LAND ISLANDS. See p. 854.

Fri'o, Cape, in Brazil, N. E. of Rio Janeiro.—23, 0 S. 41, 58 W.

GALAPA'GOS, a group of islands in the Pacific Ocean, off the coast of Ecuador, immediately under the equator. They abound in turtle, and in cedar.

George Town, the capital of British Guiana, is situated near the mouth of the river Demerara. It is built of wood. Pop. 25,000.

Goy'az (formerly Villa Boa), a city of Brazil, the capital of a province of the same name. Pop. 8000.

Guaman'ga or Huaman'ga, a handsome city of Peru; near it are mines of gold, silver, and mercury. Pop. 15,000.—13, 0 S. 74, 0 W.

Guay'aquil, a flourishing city and seaport of Ecuador, the capital of the province of Guayaquil, at the head of the gulf of the same name. It has one of the best harbours on the Pacific. Pop. 25,000.—2, 11 S. 79, 50 W.

Guia'na. See p. 341.

Guia'na, British. See p. 341.

HORN, CAPE, a celebrated promontory, in an island on the S. of Tierra del Fuego; the most southern point of America.—55, 59 S. 67, 16 W.

Huancavel'ica, a mining town of Peru, the capital of a province, 80 miles N.W. of Guamanga. It is 11,000 feet above the sea. Its mines of

quicksilver are among the richest in the world. Pop. 8000.

JU'AN FERNAN'DEZ, an island in the Pacific Ocean, about 400 miles from the coast of Chili. It is 18 miles long by 6 broad, and is noted as having been, about 1703, the solitary residence of Alexander Selkirk for upwards of four years,—an event upon which Defoe founded his celebrated *Adventures of Robinson Crusoe*.

LA GUAY'RA, a seaport of Venezuela, about 16 miles from Caracas, of which it is the port. Pop. 6000.—10, 36 N. 67, 0 W.

La Paz, the largest city and commercial metropolis of Bolivia, the capital of the province of the same name; near it are the mountains Illimani and Sorata, among the loftiest of the Andes. Pop. 76,372.—16, 30 S. 68, 38 W.

La Pla'ta, or the Argentine Republic. See p. 349.

Latacun'ga, a town of Ecuador, near the lofty volcanic mountain of Cotopaxi. P. 10,000.—0, 50 S. 78, 45 W.

Le Maire, Strait of, a channel or passage between Staten Island and Tierra del Fuego, discovered in 1616 by the Dutch navigators Schouten and Le Maire, who passed through it, and round Cape Horn, into the Pacific Ocean.

Li'ma, the capital of Peru, situated on the Rimac, was founded, in 1534, by Pizarro, who is buried in its sumptuous cathedral. Here is a university, the oldest in the New World, with a collection of Peruvian antiquities. The city suffers so frequently from earthquakes, that its houses are generally of only one story, with flat roofs. It has a large trade, carried on chiefly through its port, Callao. Pop. 100,000.—12, 2 S. 77, 5 W.

MADEIRA, the principal tributary of the great river Amazon, rises in Bolivia and joins the Amazon after a course of 1800 miles.

Magdale'na, a river of New Granada, has its source in the Andes to the S. of Popayan, flows northward, and, after a course of 860 miles, falls into the Caribbean Sea.

Magel'an, Strait of, a passage from the Atlantic to the Pacific Ocean, between the continent and the island of Tierra del Fuego. It is 300 miles in length; its navigation is intricate and dangerous.

Maracay'bo, a fortified city at

Venezuela, the capital of the province of Maracaybo, on the outlet of the lake of the same name; it has considerable trade. Pop. 42,832.

Maracaybo, a lake of Venezuela, about 100 miles long and 70 broad, communicating by a strait with the Gulf of Maracaybo.

Mar'ajo or Joan'nes, an island of Brazil, separated from the continent by the estuaries of the Amazon and the Para. Extent, 10,000 square miles. Pop. 20,000.

Mar'anhao or San Lu'is, a city and seaport of Brazil, the capital of a province, is situated on an island in the mouth of the river of the same name. It has a great trade in cotton and rice. P. 30,000.—2, 31 S. 44, 18 W.

Margari'ta. See Descriptive Table of North America.

Mat'to Gros'so (formerly Villa Beila), a city of Brazil, in the province of the same name, on the Guapore, near the frontier of Bolivia. Pop. 15,000.

Mendo'za, a city of La Plata, the capital of a province, situated in a plain at the foot of the Andes. It was nearly destroyed by an earthquake in 1861. Pop. before that catastrophe, 18,000.

Mer'ida, a city of Venezuela, nearly destroyed by the great earthquake which, in 1812, overwhelmed the city of Caraccas, 320 miles to the N. E. It stands in a rich vale surrounded by mountains. Pop. 25,000.—8, 12 N. 71, 5 W.

Mon'ta Vid'eo, the capital of Uruguay, on the La Plata, is fortified and surrounded by a strong wall. It exports large quantities of hides. Pop. 45,765.—34, 53 S. 56, 15 W.

NATAL', a seaport of Brazil, the capital of the province of Rio Grande do Norte, on the Atlantic; it has considerable exports of Brazil-wood. Pop. 10,000.—5, 4 S. 35, 15 W.

New Gran'ada. See p. 337.

ORINO'CO. See Remarks, p. 335.

Otav'alo, a flourishing town of Ecuador, 40 miles north of Quito. Pop. 8000.

Ou'ro Pre'to (formerly Villa Rica), a city of Brazil, the capital of the province of Minas Geraes. P. 9000.

PANAMA' or Da'rien, Isthmus of, a narrow neck of land, in the N. W. of New Granada, uniting North and South America. It extends 360 miles, in the form of a crescent, round the Bay of Panama; its

general breadth is about 40 miles, but, where narrowest, it is not more than 28 miles. A railway from Aspinwall to Panama, about 50 miles in length, connecting the coasts of the Atlantic and Pacific Oceans, was opened for traffic in 1855.

Panama', a state and seaport city of the republic of Colombia or New Granada, on the bay of the same name. It stands at the southern terminus of the railway across the isthmus. P. 12,000.—8, 57 N. 79, 30 W.

Pa'ra, a city and seaport of Brazil, the capital of the province of the same name, situated on the estuary of the Para. Its chief exports are cotton, cocoa, rice, and drugs. Pop. 20,000.—1, 28 S. 48, 30 W.

Pa'ra, a river of Brazil, formed by the union of the Tocantins and the Araguay; it falls into the Atlantic, to the south of the Amazon.

Paraguay. See p. 348.

Paraguay River, rises in Brazil, and flows S. 1200 miles, forming the E. boundary of Bolivia, and also of La Plata, till it joins the Parana.

Parahy'ba, a seaport of Brazil, the capital of the province of the same name, near the mouth of the Parahyba. Pop. 15,000.—7, 5 S. 35, 4 W.

Para'na, a town of the Argentine Republic, on the E. bank of the river Parana, opposite Santa Fe. P. 7000.

Para'na River, has its source in the mountains of Brazil; flowing S. W. it receives the Paraguay, and, near Buenos Ayres, unites with the Uruguay to form the river Plata.

Pa'ria, Gulf of, an inlet of the Caribbean Sea, between the coast of Venezuela and the island of Trinidad; its north entrance is called the Dragon's Mouth.

Par'imè Mountains, extending about 600 miles in the south of Venezuela, and in Guiana.

Pas'co, a mining town of Peru, the highest city in the world, being 13,720 feet above the sea. Its silver-mines are believed to be the richest anywhere wrought. Pop. 12,000.

Patago'nia. See p. 353.

Pa'tos, a lake or lagoon in the south of Brazil, communicating with the lake of Mirim, and, by the Rio Grande, with the Atlantic.

Pearl Islands, a group belonging to New Granada, in the Bay of Panama: they were so called from a pearl-fishery carried on there.

Pernambu'co, a seaport of Brazil.

the capital of the province of the same name; it consists of four towns,—Olinda, Recife, San Antonio, and Boa Vista,—and has an extensive trade in sugar, cotton, and hides. Pop. 68,000.—8, 3 S. 84, 52 W.

Peru'. See p. 345.

Pichin'cha, a volcanic mountain of Ecuador, near the city of Quito. It is 15,924 feet high: Humboldt twice ascended to the mouth of its crater.

Popay'an, a handsome city, the capital of the state of Cauca, in Colombia or New Granada, beautifully situated near the river Cauca, in the vicinity of gold-mines. Pop. 20,000.

Por'to Ale'gre, a town of Brazil, the capital of the province of Rio Grande do Sul, situated on Lake Patos. P. 12,000.—30, 0 S. 51, 20 W.

Poto'si, a city of Bolivia, the capital of the province of the same name; it is, next to Pasco, in Peru, the most elevated city in the world, being situated 13,330 feet above the sea, on the side of a conical mountain celebrated for its silver-mines. Pop. 22,850.—19, 35 S. 65, 20 W.

Puer'to Bel'lo, a seaport of New Granada, on the north coast of the Isthmus of Panama. It has a fine port, but is very unhealthy. Pop. 1300.—9, 35 N. 79, 40 W.

Pu'no, a town of Peru, the capital of a district once rich in mines of silver, on the west shore of Lake Titicaca. Next to Pasco and Potosi, it is the highest town in the world, being 12,870 feet above the sea. Pop. 9000.—15, 50 S. 70, 22 W.

QUITO (Kee'to), the capital of Ecuador, at the base of the volcanic mountain Pichincha, 9543 feet above the sea. The climate is that of perpetual spring; but the situation of the town renders it peculiarly exposed to destructive earthquakes. Pop. 76,000.—0, 14 S. 78, 48 W.

RECIFE. See Pernambuco.

Riobam'ba, a town of Ecuador, in the province of Quito; near it are mines of gold and silver. Pop. 16,000.—1, 38 S. 78, 49 W.

Ri'o Colora'do, a river which rises in the Andes of Chili, flows south-east through the pampas of the Argentine Republic, and falls into the Atlantic near 40° S. lat.

Ri'o de la Pla'ta. See p. 335.

Ri'o Grande or San Pe'dro, a seaport of Brazil, in the province of Rio Grande, at the outlet of Lake Patos;

it is a place of considerable trade. Pop. 3590.—32, 7 S. 52, 8 W.

Ri'o Ha'cha, a small seaport of New Granada, at the mouth of the Hacha, on the Caribbean Sea.

Ri'o Janei'ro, the capital of Brazil, and the largest and most important commercial city of South America. It is beautifully situated on a noble bay studded with more than a hundred islands, and has one of the finest harbours in the world, defended by a citadel and several forts. Its principal exports are sugar, coffee, cotton, hides, drugs, cabinet and dye woods, gold, diamonds, and precious stones. The trade is chiefly in the hands of the British. Pop. 296,136.—22, 54 S. 43, 15 W.

Ri'o Ne'gro, a river of Brazil, has its source in New Granada, and joins the Amazon, after a course of 1000 miles.

ST ANTO'NIO, a cape of Buenos Ayres, at the south entrance of the Rio de la Plata.—36, 20 S. 56, 46 W.

St Mari'a, a cape of Uruguay, to the E. of Monte Video.—34, 35 S. 54, 20 W.

St Roque, a prominent cape on the coast of Brazil.—5, 3 S. 35, 33 W.

Sal'ta, a town of the Argentine Republic, the capital of a province of the same name. Pop. 11,300.

San Francis'co, a river of Brazil, which rises in the south of the province of Minas Geraes, and, after a circuitous N. E. course of 1500 miles, falls into the Atlantic.

San Ju'an, a town of the Argentine Republic, at the foot of the Andes: near it are gold-mines. Pop. 20,000.—31, 6 S. 69, 6 W.

San Pau'lo, a city of Brazil, the capital of the province of the same name. P. 22,032.—23, 30 S. 46, 40 W.

San'ta Cruz de la Sier'ra, a city of Bolivia, the capital of the province of the same name, situated in an extensive plain. Pop. 9780.

San'ta Fe, a town of the Argentine Republic, on the Salado, the capital of a province of the same name. Pop. 15,000.

San'ta Mar'ta, a seaport of New Granada, the capital of the province of Magdalena, on the Caribbean Sea. Pop. 8000.

Santa'rem, a town of Brazil, in the province of Para, on the Tapajos, at its confluence with the Amazon. Pop. 5000.

Santia'go, the capital of Chili,

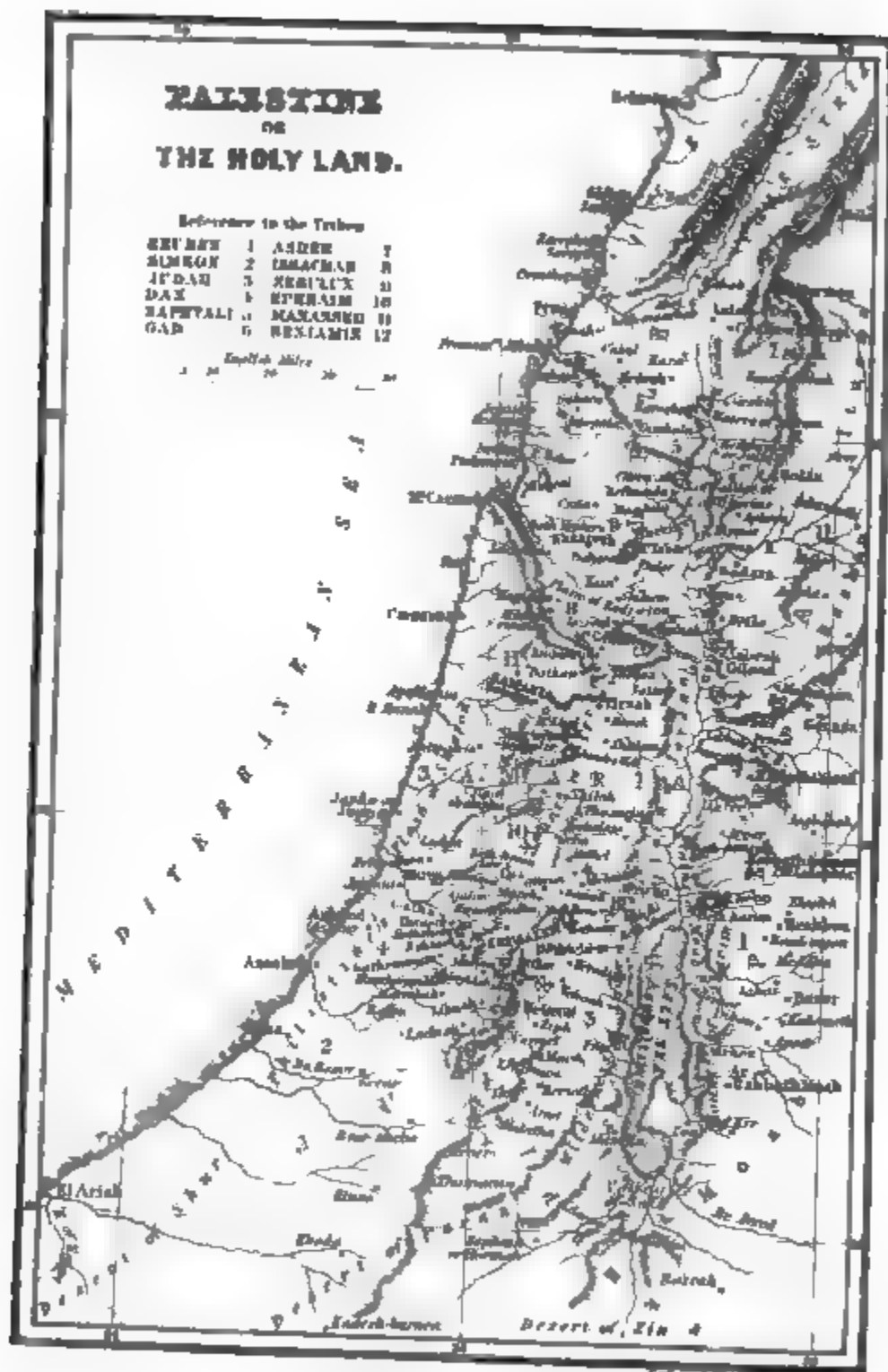


# PALESTINE OR THE HOLY LAND.

Reference to the Tribes

REUBEN	1	ASHER	7
SIMEON	2	ISACHAR	8
JUDAH	3	NEPHTHALI	9
DAN	4	MANASSE	10
SAFAVALI	5	MANASSE	10
GAD	6	REUBEN	12

English Miles 1 10 20 30



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situated on the Maypocho, in a richly wooded plain, 60 miles S. E. of Valparaiso, its port, with which it is connected by a railway. It is the seat of a university. Pop. 80,000.—33, 26 S. 70, 40 W.

Socor'ro, a town of New Granada, the capital of a province, on a tributary of the Magdalena. Pop. 12,000.—6, 30 N. 73, 40 W.

South Georgia, an island in the S. Atlantic, situated to the east of the Falkland Islands.

South Shet'lands, a cluster of islands, situated in 63° S. lat., to the south of Cape Horn. To the east is a smaller group, called the South Orkneys.

Sta'ten, a barren rocky island off the S. E. coast of Tierra del Fuego, from which it is separated by the Strait of Le Maire.

Surinam', a district of Guiana, belonging to the Dutch, lies between British and French Guiana, and is traversed by several rivers. Area, 84,000 square miles. Pop. 53,630.—Parama'ribo, the capital, is situated on the river Surinam, 16 miles from its mouth. Pop. 20,000.

TIER'RA DEL FUE'GO, a large island, or, more properly, a group of islands, separated from the southern extremity of the continent by the Strait of Magellan. It consists almost wholly of rocks and mountains, many of whose summits are covered with perpetual snow.

Titica'ca, the sacred lake of the Peruvians, is situated partly in Bolivia, and partly in Peru, at an elevation of 12,850 feet above the Pacific. It is enclosed by the Andes. It is 120 miles in length, and receives the

waters of numerous streams; but its only outlet is the Desaguadero, by which it communicates with Lake Uros.

Truxil'lo, a seaport of Peru, on the Pacific, founded by Pizarro, in 1535. Pop. 6000.—8, 6 S. 79, 4 W.—A town of Venezuela, capital of a province. It was named after a town in Spain, the birthplace of Pizarro. Pop. 12,000.

Tu'cuman, a city of La Plata, the capital of the province of the same name, situated on the Dulce, in a fruitful valley. Pop. 11,000.—26, 44 S. 64, 30 W.

UR'UGUAY or Ban'da Oriental'. See p. 348.

VALDI'VIA, a city and seaport of Chili, with a capacious harbour, defended by several forts and batteries. Pop. 2000.—39, 50 S. 73, 30 W.

Valen'cia, a city of Venezuela, in a fertile plain, near the beautiful Lake Tacarigua. Pop. 15,000.—10, 8 N. 67, 55 W.

Valparai'so, the principal seaport of Chili, situated on a bay of the Pacific. It has a large foreign trade. It is connected by a railway with Santiago, the capital of Chili. Pop. 75,000.—33, 2 S. 71, 41 W.

Venezue'la. See p. 337.

Victo'ria, a seaport of Brazil, the capital of the province of Espirito Santo, on an island in the fine bay of that name. Pop. 6000.

Vil'la Vico'za, a town of Brazil, in the province of Ceara, surrounded by groves of cocoa-palms. Pop. 5000.

XARAY'ES, a lake of Brazil, formed by the waters of the Paraguay which, in the rainy season, spread over a vast extent of ground.

## PALESTINE, OR THE HOLY LAND,

Is bounded N. by Syria; W. by the Mediterranean Sea; S. by Arabia; E. by Arabia and Syria. Extent, 12,600 square miles. Population, in the time of David, upwards of 5,000,000.

### Provinces and Tribes.

### Chief Towns.

#### 1. GALILEE.

Asher.....Aecho or Ptolemais, Zarephath or Sarepta, Tyre and Sidon.

Nephtali.....Kedesh - Naphtali, Harosheth, Capernaum, Chorazin, Bethsaida.



Provinces and Tribes.	Chief Towns.
Zebulun.....	Tiberias, Nazareth, Cana.
Issachar.....	Jezreel, Shunem, Aphek, Nain.

## 2. SAMARIA.

Manasseh (Half-tribe)	Cæsarea, Tirzah, Bethshan, Dothan, Endor, Megiddo.
Ephraim.....	Samaria, Shechem, Shiloh, Lydda, Antipatris.

## 3. JUDEA.

Benjamin.....	Jerusalem, Gibeon, Mizpeh, Bethel, Jericho, Bethany, Emmaus.
Judah.....	Hebron, Bethshemesh, Makkedah, Tekoah, Bethlehem.
Dan.....	Gath, Ajalon, Ashdod, Arimathea, Joppa.
Simeon.....	Askelon, Gaza, Beersheba, Hormah.

## 4. PEREA.

Reuben.....	Heshbon, Bezer, Medeba, Jahaz, Bethabara.
Gad.....	Ramoth-Gilead, Succoth, Peniel, Mahanaim, Mizpeh, Jabesh-Gilead.
Manasseh (Half-tribe)	Golan, Gadara, Dan, Cæsarea Philippi.

**RIVERS.**—Jordan, Arnon, Jabbok, Cherith, Kishon, Kanah, Gaash, Eshcol, Sorek, Besor, River of Egypt, Kidron or Cedron.

**LAKES.**—Dead Sea or Lake of Sodom, Sea of Galilee or of Tiberias or Lake of Gennesareth, Waters of Merom.

**MOUNTAINS.**—Lebanon, Hermon, Bashan, Gilead, Abarim, Heights of Baal, Pisgah, Peor, Nebo, Carmel, Tabor, Gilboa, Mount Ephraim, Ebal, Gerizim, Gaash, Rock of Rimmon, Moriah, Zion, Mount of Olives, Hachilah.

**VALLEYS, PLAINS, ETC.**—Vale of Siddim, Plains of Moab, Valley of Salt, Wilderness of Maon, Wilderness of Ziph, Wilderness of Engedi, Valley of Berachah, Forest of Hareth, Plain of Mamre, Valley of Zephathah, Valley of Elah, Valley of Rephaim, Valley of Ajalon, Valley of Hinnom, Valley of Shaveh, Wilderness of Judea, Valley of Achor, Valley of Bochim, Plain of Moreh, Wood of Ephraim, Vale of Sharon, Plain of Jezreel or Megiddo.

**REMARKS.**

Palestine extended from 30° 40' to 33° 35' N. lat., and from 33° 45' to 36° 25' E. long. Its greatest length, from N. to S., was 200 miles; its greatest breadth, from E. to W., about 100 miles.

The country is in Scripture called also the *Land of Canaan*; the *Land of Promise*; the *Land of the Hebrews*; the *Land of Israel*; the *Land of Judah*; the *Land of Jehovah*; the *Holy Land*. It was originally inhabited by the Amorites on both sides of the Jordan; the Hittites or Children of Heth on the west of the Dead Sea; the Jebusites on the north-west of the Dead Sea; the Canaanites in the middle, between the Jordan and the Mediterranean; the Perizzites between the Sea of Galilee and the Mediterranean; the Gergashites or Gergesenes on the east of the Sea of Galilee; the Hivites at the foot of Lebanon and Hermon; the Sidonians in the north-west coast; the Philistines in the south-west coast.

"Palestine," says Dr Kitto, "is a country, small though it be, well worthy of attention, and in some respects as peculiar as the people whose history is inseparably connected with it. It does not, like most other small countries, constantly remind you that it is only conventionally separated; but it is *a complete country*—a compact, distinct, and well-proportioned territory. It offers, as it were, an epitome of all the physical features by which different countries are distinguished, and which very few possess in combination. It has its lofty mountains, its stern rocky wildernesses, and its smiling hills; it has its pleasant valleys, its wide plains, and elevated plateaus; and, while on the one hand, it presents an extended seacoast, with its harbours, beaches, cliffs, and promontories; on the other, the solitary deserts extend their inhospitable wastes of sand. The principal river of this country, and the smaller streams, the large inland lakes—one of them so remarkable in its characteristics,—the hot springs, and the various volcanic indications, complete the singularly varied natural attributes of this 'glory of all lands.'"

Palestine takes the character of a mountainous country, diversified, however, by some considerable plains and by numerous valleys. Its mountains are chiefly of limestone; as are those also of Syria and of Asia Minor. Salt is produced in vast abundance, chiefly in the neighbourhood of the Dead Sea. The territory abounds in caverns, to which there is frequent allusion in Scripture. The variations of sunshine and rain are confined chiefly to the latter part of autumn and winter. The cold of winter is not severe, and the ground is never frozen. In the low-lying plains a little snow falls, and it disappears early in the day; in the higher lands, as at Jerusalem, it often falls, chiefly in January and February, to the depth of a foot or

more; but even there it does not lie long. In the plains and valleys the heat of summer is oppressive: in the more elevated tracts, as at Jerusalem, it is moderate, except when the south wind, or *sirocco*, blows. In such high grounds the nights are cool, and often bring heavy dew. The total absence of rain in summer soon destroys the verdure of the fields, and gives to the general landscape an aspect of drought and barrenness. No green thing remains but the foliage of the scattered fruit-trees. In autumn, the whole land becomes dry and parched, and all nature, animate and inanimate, languishes for the return of the rainy season. The climate of Palestine has always been considered healthy, and the inhabitants have for the most part lived to a good old age. Jerusalem, in particular, from its great elevation, clear sky, and invigorating atmosphere, should be a healthy place, and so it is generally esteemed.

## EXERCISES.

What are the boundaries of Palestine or the Holy Land? What is its area in square miles? What was its population in the time of David? Name its provinces. What were the tribes in Galilee? In Samaria? In Judea? In Perea? What were their chief towns? Name the rivers. Name the lakes. What are the principal mountains? Name the more remarkable plains and valleys.

Between what degrees of latitude and longitude is Palestine situated? What are its greatest length and breadth?

What names are given in Scripture to the country of Palestine? By whom and in what localities was it originally inhabited? Give an outline of Dr Kitto's description of the country. Of what are its mountains chiefly composed? Where is salt found in great abundance? Describe the seasons and climate.

## DESCRIPTIVE TABLE.

**AB'ARIM**, a range of rugged mountains east of the Dead Sea and the Lower Jordan. It presents several remarkable elevations, as Nebo, Pisgah, Peor, and Baal; from Mount Nebo, one of the highest of the range, Moses viewed the Promised Land before he died.

**Ac'cho** or **Ptolema'is** (*Acre*), a strong city and seaport of Asher, on a fine bay of the Mediterranean Sea. See *Acre*, Descriptive Table of *ASIA*.

**A'chor**, a valley of Benjamin, between Jericho and Ai, where Achan was stoned to death.

**Adul'am**, a city of Judah, in the south of the Tribe; it is chiefly remarkable for the cave in its vicinity, in which David took refuge when he fled from Gath.

**Ai**, a city of Benjamin near Bethel, noted for its capture and destruction by Joshua.

**A'jalon** (*Yalo*), a town in the Tribe of Dan, contiguous to which is the Valley of Ajalon, memorable as the scene of the miracle, when, while Joshua was in pursuit of the five kings of the Amorites, "the sun stood still upon Gibeon, and the moon in the Valley of Ajalon."

**An'athoth** (*Anata*), a city of Benjamin, memorable as the birthplace and residence of the prophet Jeremiah.

**Antip'atris** (*Kefr Saba*), a city of Ephraim, in the Plain of Sharon.

**Arimathe'a**, in the Tribe of Dan, supposed to be the modern Ramleh, the native city of Joseph who begged

the body of Jesus from Pilate. It is on the road between Joppa and Jerusalem.

Ar'non (*Mojib*), a river which rises in the mountains of Gilead, on the east of Jordan, forming the northern boundary of Moab, and falling into the Dead Sea. In the rainy season it flows with impetuosity in a deep channel, but in summer the stream is almost dried up.

Ar'coer, a city of Reuben, on the Arnon, which is supposed to have divided it into two parts, and to have been hence called "the city in the midst of the river." It is memorable for the battle fought here between the Israelites and the Ammonites.

Ash'dod or Azo'tus (*Esdud*), a strong city in the Tribe of Dan, near the Mediterranean coast, one of the five cities of the Philistines, who brought the captured Ark to Ashdod, and deposited it in the temple of Dagon. Here Philip the Evangelist was found after he had baptized the Ethiopian eunuch. The destruction of Ashdod was foretold by several of the prophets.

Ash'er, a Tribe whose territory was in a fruitful country, on the seacoast, bounded by Lebanon on the N., Mount Carmel and Zebulun on the S., and Naphtali on the E. On quitting Egypt, this Tribe numbered 41,500 adult males; in the plains of Moab it amounted to 53,400.

Ash'taroth, or Ash'taroth Car'naim (*Mezareib*), a city of Manasseh, beyond the Jordan, and one of the chief cities of Og, king of Bashan.

As'kelon or As'calon (*Askulan*), a strong seaport in the Tribe of Simeon, on the Mediterranean, and one of the five cities of the Philistines. It suffered much in the Jewish war with the Romans, and figured prominently in the history of the Crusades. Numerous ruins attest its ancient strength.

BEER-SHE'BA (*Bir-es-Seba*), a town of Simeon, in the S. of the Tribe, a favourite residence of the patriarchs. The limits of the Holy Land are often expressed in Scripture by the terms, "From Dan to Beer-sheba." Dan being the northern, and Beer-sheba the southern extremity of the land.

Ben'jamin, a Tribe which occupied the rich fertile country in the north of Judea; being bounded by Judah on

the S., by Ephraim on the N., by the River Jordan on the E., and by Dan and Judah on the W. On quitting Egypt, this Tribe numbered 35,400 adult males; in the plains of Moab it amounted to 45,600.

Ber'achah, a valley of Judah, in the Wilderness of Tekoah.

Be'sor, a brook which has its rise in Judah, and falls into the sea near Gaza.

Bethab'ara, a town of Reuben, on the Jordan, where there was a ford or passage over the river;—the place where John baptized.

Beth'any a town or village of Benjamin, about two miles east of Jerusalem, beyond the Mount of Olives. It was the residence of Lazarus and his sisters Mary and Martha; the scene of our Lord's miracle of raising Lazarus from the dead; and the place where he was parted from his disciples and ascended into heaven.

Beth'el (*Beitin*), a city of Benjamin, originally called Luz, memorable as the scene of Jacob's vision.

Bethho'ron, two towns of this name in the S. of Ephraim, are distinguished in Scripture as Upper and Nether Bethhoron; between them was a pass, down which the five kings of the Amorites were driven by Joshua. Both towns were fortified by Solomon.

Beth'lehem (*Beit Lahm*), a city of Judah, about six miles south of Jerusalem; it was also called Ephratah and Bethlehem-Judah. Bethlehem is celebrated as the birthplace of David, and as the scene of the Book of Ruth; but its distinguishing glory consists in its being the birthplace of the Messiah. On the N. E. side of the town is a deep valley, where tradition says that the angels appeared to the shepherds, with the glad tidings of our Saviour's nativity.

Beth'phagé, a village at the foot of the Mount of Olives, between Bethany and Jerusalem. Not a vestige of the place now exists.

Bethsai'da, a town of Galilee, on the west side of the Sea of Tiberias. It was the native place of Peter, Andrew, and Philip, and the frequent residence of Jesus.

Bethsai'da or Jul'ias, on the east side of Jordan, near its influx into the Sea of Tiberias, where Christ fed the five thousand.

Beth'shan or Scythopolis (*Beisan*),

a city of Western Manasseh, within the territory of Issachar, near the Jordan. The body of Saul was fastened to the walls of Bethshan by the Philistines, whence the men of Jabesh-Gilead took it down and carried it away.

Beth'shemesh (*Ain Shems*), a city of Judah, which is particularly noticed in Scripture, as the place where many of the inhabitants were struck dead for presuming to look into the Ark.

Be'zer, a city of Reuben, beyond the Jordan, and one of the cities of refuge.

CÆSARE'A or Cæsarea of Palestine (*Kaisariyah*), a city and seaport on the Mediterranean Sea, built by Herod the Great. It became the Roman metropolis of Palestine, and the residence of the proconsul. Cæsarea was the scene of several remarkable events: here Peter converted Cornelius and his kinsmen; here was the residence of Philip the Evangelist; here St Paul so admirably defended himself against the Jews.

Cæsarea Philip'pi, originally called Panca (*Banias*), a city of Upper Galilee, at the foot of Mount Lebanon, and near the springs of the Jordan. The city was much enlarged and beautified by Philip the Tetrarch, who called it Cæsarea in honour of Tiberius the emperor. During the Crusades it was the scene of various changes and conflicts. It has now dwindled into an insignificant village.

Ca'na, a small town of Galilee, on the north of Nazareth, where our Saviour performed his first miracle, by turning water into wine.

Capernaum, a city of Galilee, on the west side of the Lake of Genesareth, and on the border of the tribes of Zebulun and Naphtali. It seems to have been, more than any other place, the residence of our Saviour after he commenced his great mission. Here he performed many mighty works, which brought a heavy woe upon the inhabitants for their unbelief; hence the force of the denunciation, which has been so completely accomplished, that even the site of Capernaum is quite uncertain.

Car'mel, Mount, a range of hills extending north-west from the Plain of Esdraelon, and terminating in the promontory or cape which forms the

Bay of Acre. The height is about 1700 feet, and at the foot of the mountain, on the south, runs the brook Kishon. On its summit are oaks and pines, and, lower down, olives and laurel trees. Two or three villages and some scattered cottages are found on it, and its surface is covered with a rich and constant verdure. There are many caves in this mountainous range, particularly on the west side.

Che'rith, a brook, from which the prophet Elijah was supplied with water during the time he was fed by the ravens; it flowed through the Plain of Esdraelon into the Jordan.

Choraz'in, a town of Galilee on the west coast of the Lake of Genesareth, near Capernaum. No trace whatever now remains of it.

DAN, a Tribe, the district allotted to which, although contracted, was very fertile. It had the country of the Philistines on the W.; part of Judah with Benjamin on the E.; Ephraim on the N.; and Simeon on the S. There is no doubt that the territory as allotted, but not possessed, extended to the Mediterranean, through the country of the Philistines. On quitting Egypt, this Tribe numbered 62,700 adult males; in the Plains of Moab it amounted to 64,400.

Dan, originally called La'ish, a city at the northern extremity of Canaan, near the springs of the Jordan, belonging to the tribe of Dan.

Dead Sea, called in Scripture the *Salt Sea*, the *Sea of the Plain*, and the *East Sea*. It is also called the *Lake* or *Sea of Sodom*, and by Josephus *Lake Asphaltites*, that is, the bituminous lake. In its vicinity stood the four cities of the plain which were consumed by fire from heaven. Its greatest length is fifty miles, its general breadth from ten to twelve miles, its area 360 miles: it is 1316 feet below the level of the Mediterranean Sea.

Do'than, a city of Western Manasseh, about 12 miles north of Samaria. Joseph's brethren were in the vicinity of Dothan, when they sold him to the Ishmaelites who were travelling from Gilead to Egypt.

E'BAL, Mount. See Gerizim, Mount.

Ed'rei (*Edhra*), a town of Eastern Manasseh, one of the chief towns of Bashan beyond the Jordan. It was here that Og, king of Bashan, was

defeated by the Israelites, and lost his kingdom.

**Ek'ron** (*Akir*), a city of Dan, the chief of the five Philistine states. The Ekronites were the first who proposed to send back the Ark, to be delivered from the calamities which it brought on their country.

**E'lah**, a valley about eleven miles S. W. from Jerusalem, in which the Israelites were encamped when David slew Goliath.

**Em'maus**, a village of Benjamin,  $7\frac{1}{2}$  miles N. W. from Jerusalem, memorable for the interesting conversation between Christ and two of his disciples on the evening of the day of his resurrection.

**En'dor**, a town of Western Manasseh, in the territory of Issachar, chiefly remarkable as the abode of the sorceress whom Saul consulted on the eve of the battle in which he perished.

**En'gedi** (*Ain Jidy*), a city of Judah on the W. shore of the Dead Sea. In the mountains by which Engedi was environed are numerous caves, in some of which David and his followers took up their abode when persecuted by Saul.

**E'phraim**, a Tribe whose territory was one of the finest and most fruitful parts of Palestine. It extended from the Mediterranean on the W. to the Jordan on the E.; on the N. it had the Half-tribe of Manasseh, and on the S. Benjamin and Dan. On quitting Egypt, this Tribe numbered 40,500 adult males; in the plains of Moab it amounted to 82,500.

**E'phraim**, a mountain or group of mountains, situated in the centre of the Holy Land, opposite to the mountains of Judah.

**E'phraim**, the Forest or Wood of, on the east of the Jordan, not far from Mahanaim; here Absalom was suspended from an oak, and was slain.

**Esdrae'lon** (the Armageddon of the Apocalypse), a plain often mentioned in sacred history as the great battlefield of the Jewish and other nations, under the names of the Valley of Megiddo and the Valley of Jezreel; it is called by Josephus the Great Plain. In the first ages of the Jewish history, as well as during the Roman empire, the Crusades, and even in later times, it has been the scene of many a memorable contest.

**Esh'col**, the Valley of, is situated at a short distance from Hebron, on the

road to Jerusalem. Here Caleb and Joshua, while exploring the country, obtained the fine cluster of grapes which they took back with them "borne on a staff between two," as a specimen of the fruits of the Promised Land.

**Esh'taol**, a city of Dan, famed for the exploits of Samson, who was buried in its vicinity.

**GA'ASH**, a hill in the Tribe of Ephraim, on the north side of which stood Timnath Serah, memorable as the place where Joshua was buried.

**Gad**, a Tribe whose territory was situated beyond Jordan, in Gilead; bounded on the W. by the River Jordan, on the N. by Manasseh, on the E. by the Ammonites, and on the S. by Reuben. On quitting Egypt, this Tribe numbered 45,650 adult males; in the plains of Moab it amounted to 40,500.

**Gad'ara** (*Um-keis*), the chief city of Perea, or the region beyond Jordan, near the southern extremity of the Lake of Gennesareth. It was situated on a hill and fortified, and was one of the ten cities of the Decapolis. Many traces of its ancient buildings still remain.

**Gal'ilee**, the northern province of Palestine, divided into Upper and Lower Galilee. The former was distinctively called Galilee of the Nations, or of the Gentiles.

**Gal'ilee**, Sea of. See Gennesareth, Lake of.

**Gath**, a strong city in the Tribe of Dan, one of the five cities of the Philistines. Goliath was a native of Gath, and David fled, for fear of Saul, to Achish its king. During the Crusades it was destroyed by the Saracens.

**Gath-he'pher**, a town of Zebulun, the birthplace of the prophet Jonah.

**Ga'za**, a city in the Tribe of Simeon, and one of the five cities of the Philistines. It was situated near the sea-coast, and, being a frontier-town towards Egypt, was strongly fortified. It was the scene of several of the memorable deeds of Samson. It was taken, after a siege of two months, by Alexander the Great. It has been several times rebuilt; at present, its population has been variously estimated at from 4000 to 15,000.

**Gennes'areth**, Lake of, called also the *Sea of Galilee*, the *Sea of Tiberias*, and in the Old Testament the

*Sea of Chinnereth* or *Chinneroth*. It lies deep among hills and mountains, from which, in the rainy season, many streams descend. The river Jordan traverses it from N. to S., and it is said without the waters mingling. Its length is nearly 14 miles, its greatest breadth 8 miles. From numerous indications, it is inferred that the bed of the lake was formed by some volcanic eruption which history has not recorded; the waters are clear and sweet, and abound in various kinds of excellent fish. Gennesareth was the scene of many remarkable events in the life of our Saviour, in whose days the borders of the lake were well peopled, being covered with numerous towns and villages; but now they are almost desolate.

Gerizim, Mount, a mountain of Samaria, supposed to be 2500 feet in height, over against Mount Ebal; between them is situated the city of Shechem. This mountain became the seat of the religious worship of the Samaritans, who erected a temple upon it.

Gethsem'ane, Garden of, a small field or garden in the immediate vicinity of Jerusalem, over the brook Kidron, and at the foot of the Mount of Olives. It is memorable as the scene of our Saviour's agony, on the night before his crucifixion. Eight ancient olive-trees now occupy the spot; some of them are of very large size, and all exhibit symptoms of decay. The view from the Garden of Gethsemane is one of the most pleasing in the vicinity of Jerusalem.

Gib'eah (*Jeba*), a city of Benjamin, the birthplace of Saul and his residence after he became king; hence sometimes called Gibeah of Saul.

Gib'eon (*El Jib*), a city of Benjamin, the capital of the Gibeonites, 5 miles N. W. of Jerusalem. Here Solomon was favoured with that remarkable vision which left him the wisest of men.

Gil'boa, a ridge of mountains which bounds the great plain of Esdraelon on the south-east. Mount Gilboa is memorable for the defeat of Saul by the Philistines, when his three sons were slain, and he himself died by his own hand.

Gil'ead, a range of mountains beyond the Jordan, extending from Mount Hermon southward to the

sources of the brooks Jabbok and Arnon. This region was distinguished for its rich pastures and aromatic simples; the northern part, known by the name of Bashan, was celebrated for its stately oaks and fertile soil.

Gil'gal, a place on the east of Jericho, where the Israelites formed their first encampment after their passage over the Jordan; here they set up the twelve stones which they took out of the bed of the river.

Go'lan, a town of Manasseh beyond the Jordan, and one of the six cities of refuge, from which the province of Gaulonitis took its name.

Gomor'rah. See Sodom.

HACH'ILAH, a hill in the south of Judah, where David for some time hid himself from Saul.

Ha'dad-rim'mon, a city of Issachar, in the Valley of Megiddo, where Josiah, king of Judah, was slain, and his army defeated by Pharaoh-Necho, king of Egypt.

Ha'reth, a forest in the tribe of Judah, to which David withdrew to avoid the fury of Saul.

Har'osheth of the Gentiles, a city of Naphtali, near Lake Merom, the residence of Sisera, the general of Jabin, the Canaanitish king.

Ha'zor, a strong city of Naphtali, the capital of Jabin, a powerful Canaanitish king who was defeated and slain by Joshua.

He'bron (*El Khulil*), anciently called Arba or Kirjath-arba, a city of Judah, 18 miles south from Jerusalem. Abraham, Sarah, and Isaac were buried near Hebron, in the cave of Machpelah. David, after the death of Saul, made Hebron the capital of his kingdom. Present pop. 5000.

Her'mon, Mount, by the Sidonians called Sirion (*Jebel-es-Sheikh*), a branch of Antilibanus, and the highest of all the Lebanon Mountains; it is 10,000 feet above the level of the sea, and formed the N. boundary of the country beyond Jordan.

Hesh'bon (*Hesban*), a city of Reuben beyond Jordan, the capital of Sihon, king of the Amorites. Numerous ruins attest its ancient splendour.

Hin'nom, a narrow valley which bounds Jerusalem on the south, below Mount Zion.

Hor'mah, a city of Simeon, on the south border of Palestine, originally called Zephthah, the capital of the petty kingdom of Arad.

**IS'SACHAR**, a Tribe whose territory comprehended the whole of the plain of Esdraelon and the neighbouring districts—the granary of Palestine. It was bounded on the E. by the Jordan; on the W. and S. by the Half-tribe of Manasseh; and on the N. by Zebulun. On quitting Egypt, this Tribe numbered 54,400 adult males; in the plains of Moab it amounted to 64,800.

**JAB'BOK**, Brook (*Zurka*), one of the streams east of the Jordan, which flows westward into that river. It separated the kingdom of Sihon, king of the Amorites, from that of Og, king of Bashan.

**Ja'besh** or **Jabesh-Gilead**, a city of Manasseh beyond Jordan, in the Land of Gilead. It was sacked by the Israelites for refusing to join in the war against Benjamin. See Bethshan.

**Ja'zer**, a city of Gad, in the country of Moab, beyond Jordan; it afterwards became one of the Levitical cities.

**Jehosh'aphat**, Valley of, the name given to the valley which bounds Jerusalem on the east, and separates it from the Mount of Olives.

**Jer'icho**, a city of Benjamin, of which frequent mention is made in Scripture. It was the first city, after the passage of the Jordan, taken from the Canaanites by Joshua, who razed it to the ground, and pronounced a severe curse upon him who should rebuild it. In an after-age it became a school of the prophets. At the commencement of the Christian era it was a great and important city, second only to Jerusalem. It was once visited by our Saviour when he abode with Zaccheus, and healed the blind man. It was also the scene of the beautiful narrative of the good Samaritan. It was destroyed during the Mohammedan conquest. The once celebrated "City of Palms" cannot now boast of one of those beautiful trees in the adjoining plain; a wretched village alone remains; but two or three miles westward considerable ruins are found, which are supposed to mark the site of the ancient city.

**Jeru'salem**, originally named Salem or 'Peace,' the metropolis of Palestine. It was situated on the confines of the Tribes of Judah and Benjamin, and was so strongly fortified, both by nature and art, that the Jebusites,

who possessed it at the time of the conquest of Canaan, could not be driven out, nor were they completely dislodged till the time of David. The city was built on four hills, of which the chief were Moriah on the east, and Zion on the south. On the east, extending from N. to S., is the Mount of Olives, which commands a noble prospect of the city; and on the N. W., formerly without the walls, is Calvary or Golgotha. During the reigns of David and Solomon, Jerusalem was greatly enlarged, and adorned by numerous splendid buildings. At that period it had ten or eleven gates, and was fortified by strong walls and towers. But its chief glory was the temple, which was built by Solomon. This magnificent structure was erected on Mount Moriah. Jerusalem was captured four times without being demolished, namely, by Shishak, king of Egypt, by Antiochus Epiphanes, by Pompey the Great, and by Herod. It was first entirely destroyed by Nebuchadnezzar, and again by the Emperor Titus. From its destruction by the Romans to the present time, it has remained, for the most part, in a state of ruin and desolation, oppressed and broken down by a succession of foreign masters—Romans, Saracens, Franks, Mamelukes, and Turks. To these last it is still subject. The Jewish people are dispersed over every region of the globe, and almost everywhere treated with contumely and scorn. The population of Jerusalem may be estimated at from 12,000 to 15,000.

**Jez'reel** (*Zerin*), a city of Western Manasseh, within the limits of the Tribe of Issachar; here the kings of Israel had a palace, although Samaria was the metropolis of the kingdom. Here was the vineyard of Naboth which Ahab coveted; and here the retributive justice of God overtook Jezebel.

**Jez'reel**, Plain of. See Esdraelon.

**Jop'pa** or **Ja'pho** (*Jaffa*), a seaport of Dan on the Mediterranean, and the port of Jerusalem. It was a very ancient town. Here the materials brought from Mount Lebanon for Solomon's temple were landed, and here the prophet Jonah embarked for Nineveh. Here also Peter raised Tabitha from the dead. During the Jewish war Joppa was strongly fortified; but, being taken by surprise, it



was plundered and burnt. Its present population is about 4000.

Jor'dan or the river of Dan, the principal river of Palestine, has its source from two springs or fountains near Paneas at the foot of Antilibanus. It flows due south, intersecting the Lake Merom and the Lake of Gennesareth, and after a course of 60 miles, in a direct line, through the plains of the Jordan, loses itself in the Dead Sea. For two or three miles above the junction, the Jordan is impregnated with the saline and bituminous matter of the lake. The course of the Jordan is about 100 miles; its breadth and depth are various. Immediately above its entrance into the Dead Sea it is fordable, being not more than four feet deep, with a rapid current.

Ju'dah, Mountains of, or the hill country of Judea, the mountainous region south of Jerusalem towards Hebron.

Ju'dah, a Tribe whose territory was bounded on the E. by the Dead Sea; on the W. by Dan and Simeon; on the N. by Benjamin; and on the S. by Idumea or the Desert of Paran. On quitting Egypt, this Tribe numbered 74,600 adult males; in the plains of Moabit amounted to 76,500.

Jude'a, the metropolitan province of Palestine.

Jude'a, Wilderness of, the region lying eastward of Jerusalem towards the Jordan and the Dead Sea.

KA'DESH or Kadesh-Bar'nea, a city on the S. E. border of the Promised Land. Here Miriam, the sister of Moses, died and was buried, and here the Israelites murmured against God.

Ka'nah, a brook which rises in Samaria, and falls into the Mediterranean to the S. of Cæsarea. It was the boundary between Ephraim and Western Manasseh.

Ke'desh, a city of Naphtali, a Levitical city, and one of the cities of refuge.

Ki'dron or Ce'dron, a brook flowing through the valley of Jehoshaphat on the east side of Jerusalem, between that city and the Mount of Olives.

Kir'jath-je'arim, a city of Judah, to which the Ark was brought from Bathshemesh, and where it remained twenty years, till removed to Jerusalem by David.

Ki'shon, a river of Galilee which has its source in Mount Tabor, flows

westward through the plain of Jezreel, and, after receiving several streams from Mount Carmel, falls into the Bay of Acra.

LA'CHISH, a city of Judah, to the S. W. of Libnah, was rebuilt and strongly fortified by Rehoboam.

Leb'anon, a long chain of mountains, extending from the neighbourhood of Sidon on the W. to the vicinity of Damascus on the E., and forming by its highest summit (*Mount Hermon*), at the southern termination, the N. boundary of the country beyond the Jordan. It is divided into two parallel ranges, the western being known by the name of Libanus, and the eastern by that of Antilibanus; they are separated by the great valley or enclosed plain. The summits of these mountains are in many parts level, and form extensive plains. Cultivation, however, is chiefly found on the seaward slopes, where are a vast multitude of thrifty villages and a numerous populace of hardy, industrious mountaineers, amounting to nearly 200,000. Vineyards, and plantations of mulberry, olive, and fig trees are cultivated on terraces formed by walls. The soil of the declivities is excellent, producing corn, oil, and wine.

Lib'nah, a city of Judah, one of the royal cities of the Canaanites, taken by Joshua. It was strongly fortified, and became one of the Levitical towns.

Lyd'da or Dios'polis (*Lud*), a city of Ephraim, within the frontier of Dan, 9 miles S. E. of Joppa. It was the scene of Peter's miracle in healing Eneas.

MAG'DALA, a town on the west side of the lake of Gennesareth, the probable birthplace of Mary Magdalene, that is, Mary of Magdala.

Mahana'im, a city of Gad, beyond the Jordan, which derived its name from Jacob having been there met by the angels on his return from Padan-aram.

Makke'dah, a city of Judah, in the neighbourhood of which was the cave where the five kings, who confederated against Israel, took refuge after their defeat by Joshua.

Mam're, Valley of, celebrated for the oak (*terebinth*) tree, under which the patriarch dwelt near Hebron.

Manas'seh, Half-tribe of, east of the river Jordan, occupied the country from Gad northward to Mount Her-

mon, and from the Jordan eastward to the borders of Arabia. The other Half-tribe, on the west of Jordan, extended from that river to the Mediterranean, being bounded on the N. by Issachar, and on the S. by Ephraim. When this Tribe quitted Egypt, it numbered 32,200 adult males; in the plains of Moab it amounted to 52,700.

Ma'on, a town of Judah, E. of Hebron, which gave name to a wilderness where David hid himself from Saul, and around which the churlish Nabal had great possessions.

Med'eba, a town of Reuben, beyond the Jordan. Here Joab gained a memorable victory over the Ammonites and Syrians.

Megid'do, a town of Western Manasseh, but within the boundary of Issachar. It was rebuilt and fortified by Solomon: hither Ahaziah, king of Judah, fled when wounded by Jehu, and died here. Josiah was slain in the battle near this place by Pharaoh-Necho, king of Egypt.

Me'rom, Waters or Lake of, afterwards called Samochonitis (*Huleh*), the upper or highest lake of the Jordan. It was in this neighbourhood that Joshua obtained his signal victory over the five confederated kings of Canaan.

Mich'mash (*Mukhmas*), a town of Benjamin. Here was encamped the army of the Philistines, which was completely routed by Saul and Jonathan.

Miz'pah or Miz'peh, a city of Benjamin, where assemblies of the Israelites were often held. Here Samuel resided, and here Saul was anointed king. It was fortified by Asa, to protect the frontier against the kingdom of Israel.

Miz'peh of Gilead, a town of Gad, beyond the Jordan, by which Jephthah passed in his pursuit of the Ammonites.

Mo'rah, Plain of, between Mounts Ebal and Gerizim.

Mori'ah, Mount, one of the hills of Jerusalem, on which the Temple was built by Solomon.

NA'IN, a town of Issachar, near Mount Tabor, where our Saviour raised the widow's son to life.

Naph'tali, a Tribe which possessed one of the most fertile districts of Upper Galilee, extending from Mount Lebanon on the N. to Zebulun on the

S.; and from Asher on the W. to the River Jordan and the Lake of Genesareth on the E. On quitting Egypt, this Tribe numbered 53,400 adult males; in the plains of Moab it amounted to 45,400.

Naz'areth, a city of Lower Galilee, about 6 miles N. W. of Mount Tabor; celebrated as the place where our Saviour abode till the commencement of his ministry. During the Crusades it was alternately in the hands of the Christians and of the Mohammedans. It is now a village containing between 600 and 700 inhabitants.

Ne'bo, Mount. See Abarim.

O'LIVES, Mount of, lies to the E. of Jerusalem, from which it is separated only by the narrow valley of Jehoshaphat. It stretches from N. to S., and is about a mile in length; towards the south lies the usual road to Bethany. Amid all the vicissitudes to which the country has been subjected, the Mount of Olives has retained not only the name by which it was known in the days of David, but the same beautiful evergreen perennial foliage. The scene from the mountain is truly magnificent: while its summit, 2398 feet high, commands a view extending as far as the Dead Sea and the hills beyond Jordan, it so completely overlooks Jerusalem, that every considerable edifice and almost every house is visible.

PAL'ESTINE. See Remarks, p. 361.

Pen'iel or Pen'uel, a city of Gad, beyond the Jordan, near the river Jabbok, where Jacob wrestled with the angel, and "called the name of the place Peniel; for I have seen God face to face, and my life is preserved."

Pere'a, a province of Palestine, comprehending the country beyond the Jordan, subdivided into Abilene, Trachonitis, Auranitis, Iturea, Batanea, Gaulonitis, Decapolis, and Perea Proper.

Pis'gah. See Abarim.

Ptolema'is. See Accho.

RAB'BATH or Rab'bath-Am'mon, the capital of the Ammonites beyond the Jordan. At the siege of Rabbath by Joab, Uriah lost his life. It was ravaged by the Assyrians, when the inhabitants were carried away captive to Media. Some centuries afterwards, Rabbath was restored or rebuilt by Ptolemy Philadelphus, and

called by him Philadelphia. The city has become desolate, as was foretold by the prophet Ezekiel. Its ruins are still extensive.

Rab'ath-Mo'ab or Ar, the capital city of the Moabites, near the river Arnon. It is said that the city was destroyed by an earthquake at the close of the third century of the Christian era.

Ram'ah (*Er-Ram*), a town of Benjamin, between Gibeon and Gibeah on the way from Jerusalem to Bethel. Here Nebuzar-adan, the Chaldean general, disposed of his Jewish prisoners after their capital was taken, which occasioned a great lamentation among the daughters of Rachel; and as Rachel was buried in the neighbourhood of this place, she is represented by the prophet Jeremiah as issuing from her tomb, and lamenting the loss of her children, who were either slain or carried into captivity.

Ra'moth or Ra'moth-Gil'ead, (*Jelaad*), a strong town of Gad, in Gilead, beyond Jordan. It was a Levitical city and one of the cities of refuge. Ahab, king of Israel, was killed in battle with the Syrians before it.

Reph'aim, Valley of, or the Giant's Valley, situated S. W. of Jerusalem, on the confines of Judah and Benjamin. It was the theatre of several of the most signal victories obtained by David over the Philistines.

Reu'ben, a Tribe which occupied the fine pasture-land on the east of the Jordan, lying south of the territories of Gad, and north of the river Arnon. On quitting Egypt, it numbered 46,500 adult males; in the plains of Moab it amounted to 48,730.

Rim'mon, Rock of, the name of a high rock, not far from Gibeah, whither the children of Benjamin retreated after their defeat.

River of Egypt, or properly Torrent of Egypt, the S. W. boundary of Palestine, on the confines of Egypt; its modern name is the Wady-el-Arish. It flows into the Mediterranean, near the village of El-Arish.

SALT SEA. See Dead Sea.

Salt, Valley of, on the south of the Dead Sea, where both David and Amaziah discomfited the Edomites.

Sama'ria, the middle province of Palestine, situated between Galilee and Judea.

Sama'ria, a city of Ephraim, the

capital of the kingdom of Israel or of the Ten Tribes. It was situated on a hill which derived its name from Shemer, of whom it was purchased by Omri, king of Israel. Samaria was strongly fortified, and continued to be the capital of Israel till the carrying away of the Ten Tribes by Shalmaneser, about B.C. 720. It was the scene of many of the acts of the prophets Elijah and Elisha. It was taken, after a year's siege, and razed to the ground by the high priest Hyrcanus. It was rebuilt with great magnificence by Herod the Great, who gave it the name of Sebaste. At what time the city became desolate is not recorded. Various ruins of ancient edifices still remain. Modern Sebaste is a small village, steep of approach, but strong by nature, beautifully situated on a fine hill, surrounded by a broad deep valley.

Sarep'ta or Zar'eephath (*Sarafend*), a city of Asher, on the seacoast between Tyre and Sidon. It is the place to which Elijah was sent, and where he performed the miracle of multiplying the barrel of meal and cruse of oil, and where he raised the widow's son to life.

Sha'ron, Vale of, a plain along the Mediterranean coast, between Caesarea and Joppa, celebrated for its rich fields and pastures.

Sha'veh, a valley on the north of Jerusalem, called also the King's Dale.

She'chem or Sy'char, called also Neap'olis (*Nablous*), a city of Ephraim, between Mounts Ebal and Gerizim. After the conquest of Canaan, Shechem was made a city of refuge, and one of the Levitical towns; and on the conquest of Samaria by Shalmaneser, it became for many ages the chief seat of the Samaritans and of their worship. In its neighbourhood was Jacob's Well, at which our Saviour conversed with the woman of Samaria. Shechem suffered much in the war with the Romans, and was rebuilt by Vespasian, when it took the name of Neapolis. It was laid waste by the Saracens. The modern town extends along the north-east base of Mount Gerizim. Its population is estimated at from 8000 to 10,000, of whom about 6000 are Christians.

Shi'loh (*Scilun*), a city of Ephraim, situated on a hill about 12 miles N. of Bethel, where the people assembled to set up the Tabernacle of the Con-

gregation, which continued there till the time of Eli; it afterwards sank into insignificance.

Shu'nem (*Solam*), a city of Issachar, to the S. of Mount Tabor: here the Philistines encamped before Saul's last battle; it was the abode of the Shunammite woman with whom Elisha lodged.

Sid'dim, Vale of, memorable for the overthrow by Chedorlaomer of the five kings. Here stood the cities of Sodom, Gomorrah, Admah, and Zeboim, which were destroyed by fire from heaven. The vale is also termed the Salt Sea.

Si'don, one of the most ancient cities of Phenicia, on the Mediterranean. It was situated in the allotment of the Tribe of Asher, but never conquered. About half-way between Sidon and Tyre are vestiges of ruined towns which once connected the two cities; but of these ruins there is now scarcely one stone left upon another. The modern name of the place is *Saida*. Pop. about 6000, of whom 1500 are Christians.

Sim'eon, a Tribe which occupied the country in the south-west towards the borders of Philistia and the southern desert. On quitting Egypt, it numbered 59,300 adult males; in the plains of Moab it amounted to 22,200.

Sod'om, a city in the Vale of Sid-dim, where Lot settled after his separation from the patriarch Abraham. It was, along with Gomorrah and two other cities, destroyed by fire from heaven.

So'rek, a brook which has its rise in the mountains of Judah, and, flowing westward, falls into the Mediterranean, between Gaza and Askelon.

Suc'coth, a town of Gad, beyond the Jordan. Hither Jacob journeyed on his return from Mesopotamia, "and built him an house, and made booths for his cattle."

TA'BOR (*Jebel Tur*), a mountain of Zebulun to the S. E. of Nazareth. The view from the summit, which is a level plain 1800 feet high, is beautiful and extensive. Here Barak was encamped when he descended with 10,000 men and discomfited the host of Sisera. Tabor is supposed to have been the scene of our Lord's transfiguration.

Teko'ah, a city of Judah, south of Bethlehem, on the borders of the

desert to which it gave name. It was the birthplace of the prophet Amos, and the abode of the wise woman who interceded for Absalom. It lies to the south of Bethlehem, on a high hill which commands extensive views.

Thebez (*Tubez*), a city of Ephraim, at the siege of which Abimelech was killed.

Tibe'rias (*Tubaria*), a city of Zebulun, and one of the chief cities of Galilee, on the western shore of the Lake of Gennesareth or Sea of Tiberias. It was built by Herod Antipas, and was named in honour of the Emperor Tiberius. Ruins of walls, columns, and foundations, indicate its ancient splendour. The modern town stands close to the lake upon a plain surrounded by mountains; and is celebrated for its hot baths. Tobaria suffered greatly from an earthquake which devastated Syria in 1837. Almost every building, with the exception of the walls and some part of the castle, was levelled to the ground.

Tim'nath (*Tibneh*), a city of Dan, but long in the possession of the Philistines; it is chiefly noted as the native city of Samson's bride, and the place where he held his marriage-feast.

Tir'zah, a city of Western Manasseh, pleasantly situated to the N. E. of Samaria. Jeroboam made it the capital of his kingdom—a rank which it retained till Samaria was built by Omri.

Tyre (*Sur*), an ancient city and seaport of Phenicia, and a city allotted to Asher, but never possessed by that Tribe. Even in the time of Joshua it was strongly fortified, for it is called the strong city Tyre. It withstood the Assyrian power, having been besieged in vain by Shalmaneser for five years; it was taken by Nebuchadnezzar, king of Babylon, after a siege of thirteen years. In the year B. C. 333, Tyre was assailed by Alexander the Great, when the insular city sustained a siege of seven months, and was at length taken only by means of a mole by which the island was turned into a peninsula, and rendered accessible to land forces. For many centuries it has been a heap of ruins, with a few poor creatures housing among the broken arches and vaults, tottering walls and towers.

**ZEB'ULUN**, a Tribe which occupied the country between the Tribes of Naphtali and Issachar. On quitting Egypt, it numbered 57,400 adult males; in the plains of Moab it amounted to 60,500.

**Zik'lag**, a city of Simeon, but subject to the Philistines. Achish, king of Gath, gave it to David while he took shelter in the land of the Philistines; afterwards it belonged to Judah.

**Ziph**, a city of Judah, to the east of Hebron, with a wilderness or desert of the same name in its neighbourhood.

**Zo'ar**, one of the five cities of the Plain of Siddim. It was doomed with the rest to destruction, but was spared at the intercession of Lot, as a place to which he might escape.

**Zo'rah** (*Surah*), a city of Dan, not far from Eshtaol, chiefly celebrated as the birthplace of Samson.

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## THE TERRESTRIAL GLOBE.

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THE artificial terrestrial globe is a representation of the figure of the earth, on which are delineated the different kingdoms, seas, lakes, islands, etc., with the circles necessary for determining the position of places on its surface, and for several other purposes.

The globe, suspended on an axis, revolves in a brass ring, called the Universal or Brass Meridian, and is supported on a wooden frame, the upper surface of which is flat. It divides the globe into two hemispheres, and represents the rational horizon of any place which lies in the zenith. The axis, on which the globe turns, represents the imaginary axis or line round which the earth performs its diurnal revolution.

At the north pole there is placed a small brass circle, divided into 24 equal parts to represent the hours of the day; hence it is called the Horary or Hour Circle. On the best globes the horary circle is movable, so that any hour may be brought to the meridian, which serves as an index; where the horary circle is fixed, it has a movable index, which may be brought to any hour.

The globe is furnished with a pliable slip of brass, divided from 0° to 90° in one direction, and from 0° to 18° in the other. It has a notch and screw, by which it may be fixed to the universal meridian in the zenith of any place, and as it turns round on a pivot, it supplies the place of vertical circles, and is therefore called the Quadrant of Altitude.

On the globe itself are drawn several circles, such as the Equator or Equinoctial Line, the Ecliptic, the Arctic and the Antarctic Circles, the Tropics of Cancer and of Capricorn, as well as parallels of latitude at equal distances, and meridians generally at the distance of 15 degrees from each other.

The brass meridian is divided into degrees and parts of a degree, and is numbered on the upper half from 0° at the

equator both ways to  $90^\circ$  at the poles; and on the under half from  $0^\circ$  at each pole to  $90^\circ$  at the equator.

The equator is divided into degrees and parts, which are numbered both eastward and westward from the first meridian. It is also divided into 24 equal parts, to represent the hours of the day. The equator divides the globe into two equal parts, called the northern and the southern hemispheres.

The horizon is divided into degrees, etc., and numbered from  $0^\circ$  at the poles both ways to  $90^\circ$  on the east and west points, and also from  $0^\circ$  at these points to  $90^\circ$  at the poles. Besides these divisions, there are likewise marked the 32 points of the compass, the 12 signs of the ecliptic subdivided into degrees, etc., and the days of the 12 calendar months, answering to each degree of the sun's place in the ecliptic.

The ecliptic is divided into 12 equal parts, called Signs, and each sign is subdivided into 30 degrees. The names of the signs and the characters which represent them are:—Aries, the Ram  $\varphi$ ; Taurus, the Bull  $\mathbf{\text{♉}}$ ; Gemini, the Twins  $\mathbf{\text{♊}}$ ; Cancer, the Crab  $\mathbf{\text{♋}}$ ; Leo, the Lion  $\mathbf{\text{♌}}$ ; Virgo, the Virgin  $\mathbf{\text{♍}}$ ; Libra, the Balance  $\mathbf{\text{♎}}$ ; Scorpio, the Scorpion  $\mathbf{\text{♏}}$ ; Sagittarius, the Archer  $\mathbf{\text{♐}}$ ; Capricornus, the Goat  $\mathbf{\text{♑}}$ ; Aquarius, the Water-bearer  $\mathbf{\text{♒}}$ ; Pisces, the Fishes  $\mathbf{\text{♓}}$ . The first six signs lie in the northern hemisphere, and are called the Northern Signs; the last six lie in the southern hemisphere, and are called the Southern Signs.

The ascending signs begin at  $0^\circ$  Capricorn, the most southerly point of the ecliptic, and end at  $30^\circ$  Gemini, the most northerly; the other six are called the descending signs.

## PROBLEMS TO BE SOLVED BY THE TERRESTRIAL GLOBE.

### PROB. I.—*To find the latitude of a place.*

**RULE.**—Bring the place to the graduated edge of the brass meridian;—the degree of the meridian over it, north or south from the equator, shows the north or south latitude of the place.

**EXERCISES.**—What are the latitudes of London, Paris, Madrid, Rome, Lisbon, Edinburgh, Dublin, Vienna, Constantinople?—Ans.  $51^\circ 30'$ ;— $48^\circ 50'$ ;— $40^\circ 25'$ ;— $41^\circ 54'$ ;— $38^\circ 42'$ ;— $55^\circ 57'$ ;— $53^\circ 23'$ ;— $48^\circ 12'$ ;— $41^\circ 0'$  all north.

What are the latitudes of the Cape of Good Hope, Candy, Bombay, Madras, Calcutta, Pekin, Sydney, Valparaiso, Lima, Bogota, Rio Janeiro, Buenos Ayres, Cape Horn, Sierra Leone, Gondar, Cairo?

**PROB. II.—To find the longitude of a place.**

**RULE.**—Bring the place to the edge of the meridian;—the degree of the equator cut by it shows the longitude of the place east or west from Greenwich, the first meridian on British maps.

**Ex.**—What are the longitudes of Petersburg, Calcutta, Naples, Pekin?—**Ans.**  $30^{\circ} 19'$  E.;  $88^{\circ} 17'$  E.;  $14^{\circ} 15'$  E.; and  $116^{\circ} 28'$  E.

What are the longitudes of Cairo, Cape Town, St Helena, Amarapoor, Mexico, Rio Janeiro, Kingston in Jamaica, Sikokf, Juan Fernandez, Quebec, Lima, Valparaiso, Constantinople, Panama, Jerusalem?

**PROB. III.—The longitude and latitude of a place being given, to find that place.**

**RULE.**—Bring the given longitude to the meridian;—under the given degree of latitude on the meridian is the place required.

**Ex.**—What places are situated in  $31^{\circ} 15'$  E. long. and  $30^{\circ} 2'$  N. lat.? in  $18^{\circ} 29'$  E. long. and  $34^{\circ} 22'$  S. lat.? in  $59^{\circ} 45'$  W. long. and  $13^{\circ} 15'$  N. lat.?—**Ans.** Cairo, Cape of Good Hope, Barbadoes.

What places are situated in  $44^{\circ} 28'$  E. long. and  $56^{\circ} 19'$  N. lat.? in  $57^{\circ} 35'$  W. long. and  $25^{\circ} 15'$  S. lat.? in  $27^{\circ} 15'$  W. long. and  $38^{\circ} 40'$  N. lat.? in  $57^{\circ} 28'$  E. long. and  $20^{\circ} 9'$  S. lat.? in  $3^{\circ} 42'$  W. long. and  $40^{\circ} 25'$  N. lat.? in  $113^{\circ} 34'$  E. long. and  $22^{\circ} 12'$  N. lat.? in  $151^{\circ} 13'$  E. long. and  $33^{\circ} 51'$  S. lat.? in  $82^{\circ} 22'$  W. long. and  $23^{\circ} 9'$  N. lat.? and in  $149^{\circ} 30'$  W. long. and  $17^{\circ} 29'$  S. lat.?

**PROB. IV.—To find the difference of latitude and the difference of longitude between any two given places.**

**RULE.**—Find the latitudes of the two places, and take the difference or the sum of these according as they lie on the same side or on different sides of the equator. The difference of longitude is the difference or the sum of the longitudes of the two places according as they lie on the same side or on different sides of the first meridian.

**Ex.**—What are the difference of latitude and the difference of longitude between Edinburgh and Cairo?—**Ans.** diff. of lat.  $25^{\circ} 51'$ ; diff. of long.  $84^{\circ} 37'$ .

Find the difference of latitude and also of longitude between Edinburgh and Montreal, Mexico, Rio Janeiro, Valparaiso, Pekin, Calcutta, Bombay, and the Cape of Good Hope. Find the difference of latitude and also of longitude between Paris and Petersburg. Vienna, Sydney, Madras, Peshawur, Ispahan, Gondar, Timbuctoo, and Morocco.

**PROB. V.—To find the distance between any two places on the globe.**

**RULE.**—Lay the quadrant of altitude over the two places, and mark the number of degrees between them. When the distance is more than  $90^{\circ}$ , stretch a thread from the one place to the other, and measure the distance on the equator.

**Ex.**—What is the distance between Quebec and Rio Janeiro? Rome and London? Calcutta and the Cape of Good Hope? The Cape of Good

Hope and London?—Ans.  $74^{\circ}$  or 5115 miles;  $12\frac{1}{2}^{\circ}$  or 881 miles;— $88\frac{1}{2}^{\circ}$  or 6110 miles; and  $88\frac{1}{2}^{\circ}$  or 6110 miles.

What is the distance between Pekin and London? Petersburg and the North Cape in Kamtschatka? Paris and Cairo? Calcutta and Valparaiso? Buenos Ayres and Cape Town, measured east and west? Edinburgh and New York? Amsterdam and Batavia? Copenhagen and Trincomalee? London and Sierra Leone? Alexandria and the Cape of Good Hope? Cape Mogadore and Suez?

**PROB. VI.**—*The hour at any place being given, to find what hour it is at any other place.*

**RULE.**—Bring the place at which the hour is given to the meridian, set the index to that hour, then turn the globe until the other place comes to the meridian,—and the index will show the hour at that place. If the place where the hour is required be to the east of that of which the hour is given, then the hour will be later in the day, otherwise it will be earlier.

**Ex.**—When it is noon at Edinburgh, what is the time at Lima, Mecca, and Canton? When it is 6 o'clock A.M. at London, what o'clock is it at Sydney, Cape Comorin, and Cape Horn?—Ans. 7h. 5' M.;—2h. 55' A.;—7h. 45' A.;—4h. 5' A.;—11h. 11' M.;—and 1h. 31' M.

When it is noon and 4 o'clock at London, what are the hours at Pekin, Calcutta, Cairo, Constantinople, Quebec, Mexico, Rio Janeiro, and Ispahan? When it is  $8\frac{1}{2}$  P.M. and midnight at Jerusalem, what are the hours at London, Petersburg, Paris, Berlin, the Azores, St Helena, the Mauritius, Penang or Prince of Wales Island, Nankin, Sydney, and Nootka Sound.

**PROB. VII.**—*To rectify the globe for the latitude of any place.*

**RULE.**—Elevate the north or south pole above the horizon as many degrees as are equal to the latitude of the place.

**Ex.**—Rectify the globe for Edinburgh, London, Paris, Lisbon, Buenos Ayres, Madras, Pekin.—Ans. Elevate the N. Pole  $55^{\circ} 57'$ ,— $51^{\circ} 30'$ ,— $48^{\circ} 50'$ ,— $38^{\circ} 42'$ ;—the S. Pole  $34^{\circ} 35'$ ;—the N. Pole  $13^{\circ} 4'$ , and  $39^{\circ} 54'$  above the horizon.

Rectify the globe for Melville Island, Petersburg, Cairo, Cape Town, Valdivia, Mecca, Ispahan, Tobolsk, Delhi, Sydney, Sagalien Oola, Bencoolen, Sierra Leone, Paramatta, and Berlin.

**PROB. VIII.**—*To find the sun's place in the ecliptic for any given time.*

**RULE.**—Find the day of the month on the wooden horizon,—and opposite to it, in the adjoining circle, are the sign and degree of the ecliptic in which the sun is for that day; find the same sign and degree of the ecliptic on the globe—and that is the sun's place in the ecliptic.\*

**Ex.**—What are the sun's places on the 1st January, the 20th March, the 24th December, the 21st June, and the 23d September?—Ans.  $\gamma 10^{\circ} 15'$ ;— $\kappa 29^{\circ} 30'$ ;— $\gamma 2^{\circ} 15'$ ;— $\Pi 29^{\circ} 30'$ ;—and  $\Pi 30^{\circ}$ .

What are the sun's places on the 1st and 15th day of each month of the year?

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\* This problem may likewise be performed on the celestial globe.



**PROB. IX.**—*To find at what hour the sun rises and sets, and the length of the day and night, at any place not in the frigid zones, on a given day.*

**RULE.**—Rectify the globe for the latitude of the place, find the sun's place in the ecliptic for the given day, and bring it to the meridian; set the Index to XII., and turn the sun's place to the eastern edge of the horizon,—the index will show the hour of rising; then bring it to the western edge of the horizon,—the index will show the time of setting. The hour of sunrise, doubled, gives the length of the night; and the hour of sunset, doubled, gives the length of the day.\*

**Ex.**—At what times does the sun rise and set at Dublin, Archangel, Gibraltar, and the Cape of Good Hope, on the 15th June? And what are the lengths of the day and night at those places?—Ans. Rises 8h. 35' M., sets 8h. 25' A.;—rises 1h. 40' M., sets 10h. 20' A.;—rises 4h. 45' M., sets 7h. 15' A.;—rises 7h. 5' M., sets 4h. 55' A.

At what times does the sun rise and set at Cairo, St Helena, Bombay, Port Jackson, Cape Horn, Quebec, Mexico, and Pekin, on the 22d June, 10th September, 22d December, and 1st May? At what times does the sun rise and set at Constantinople, Ispahan, Calcutta, Canton, Lima, Valparaiso, Sierra Leone, Madeira, Paris, London, Edinburgh, and Orkney, on the 1st and 15th of each month, from 1st June to 1st January?

**PROB. X.**—*To find the sun's amplitude or on what point of the compass the sun rises and sets, on a given day, at any particular place.*

**RULE.**—Rectify the globe for the latitude of the place and find the sun's place for the particular day; then observe what place in the circle of rhumbs, on the wooden horizon, is cut by the sun's place in the ecliptic when brought to the eastern edge of the horizon, and also when brought to the western,—and that will be the point required.

**Ex.**—At what points of the compass does the sun rise and set at Gibraltar, on the 17th July, at Petersburg on the 10th October, and at Edinburgh on the 9th June?—Ans. Rises E.  $26\frac{1}{2}^{\circ}$  N., sets W.  $26\frac{1}{2}^{\circ}$  N.;—rises E.  $12\frac{1}{2}^{\circ}$  S., sets W.  $12\frac{1}{2}^{\circ}$  S.;—rises N. E., sets N. W.

At what points of the compass does the sun rise and set at Edinburgh, Archangel, Smyrna, Cairo, Cape Town, Calcutta, Pekin, Sydney, Monte Video, and Mecca, on the 1st and 15th of each month, from 1st June to 1st January?

\* Thus, if the sun rise at 6, the length of the night is 12 hours; if he set at 9, the length of the day is 18 hours. Places on the equator have sunrise at 6, and sunset at 6; and, of course, day and night equal throughout the whole year. The length of the longest day increases with the latitude; and at the polar circles the longest day is 24 hours, and the longest night the same. From these circles to the poles, the days continue to lengthen into weeks and months: at the poles, the sun is visible for six months, and invisible during the other six.

**PROB. XI.**—*The day of the month being given, to find the sun's declination,\* and the places to which he is vertical.*

**RULE.**—The sun's place in the ecliptic for the given day being brought to the meridian, the degree marked over it is the declination:—turn the globe, and all the places which pass under that degree will have the sun vertical on that day.

**Ex.**—What is the sun's declination, and to what places will he be vertical on the 7th May, the 10th February, the 4th June, and the 14th December?  
—**Ans.** Sun's declination  $16\frac{1}{2}^{\circ}$  N.;— $14\frac{1}{2}^{\circ}$  S.;— $22\frac{1}{2}^{\circ}$  N.;—and  $23\frac{1}{2}^{\circ}$  S.

What is the sun's declination, and to what places will he be vertical on the 1st and 15th of each month, from 1st December to 1st July?

**PROB. XII.**—*Given the place, day of the month, and hour, to find where the sun is then vertical.*

**RULE.**—Find the sun's declination; bring the given place to the meridian, and set the index to the given hour; turn the globe till the index points to XII. noon:—all the places then under the meridian have noon at the given hour; and the place whose latitude corresponds with the sun's declination has the sun vertical at the given hour.

**Ex.**—Where is the sun vertical on the 8th of April, when it is 6 in the morning at Dublin? Where is the sun vertical on the 19th September, when it is 4 o'clock in the morning at Amsterdam? **Ans.** Candy in Ceylon;—island of Ternate.

Where is the sun vertical on the 1st and 15th of each month, from 1st December to 1st July, when it is 2, 4, 6, 8, and 10 A. M., and 2, 4, 6, 8, and 10 P. M. at Edinburgh, London, Paris, Rome, Cairo, Calcutta, Pekin, Lima, Mexico, and Quebec?

**PROB. XIII.**—*The day, hour, and place being given, to find where the sun is then rising and setting, and where it is noon or midnight.*

**RULE.**—Rectify the globe for the latitude of the place to which the sun is vertical at the given hour, and bring that place to the meridian. In this position of the globe, the sun is rising to all those places on the western edge of the horizon, and setting to those on the eastern; to those under the upper half of the meridian it is noon or mid-day; to those under the lower half midnight.

**Ex.**—To what places is the sun rising, to what places is he setting, and where is it noon and midnight, when at Edinburgh it is 7 in the morning, on the 14th of March? Where is it noon on the 30th June, when at London it is 9 in the evening? Where is it midnight on the 6th February, when it is noon at Petersburg?—**Ans.** Rising to the Madeira and Canary Isles and on the equator at  $18\frac{1}{2}^{\circ}$  W. long.; setting to Kamtschatka, the Solomon Archipelago, New Caledonia, New Zealand, and on the equator at  $161\frac{1}{2}^{\circ}$  E. long.; noon at Tobolsk, Kashgar, Attock, and Kerguelen's Land; midnight at Lake Athabasca, Los Alamos, Isles of Revillagigedo, and Easter Island.  
—At King George's Island, N. W. coast of America, and Lord Hood's Isl.

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\* The declination of the sun is its distance from the equator, north or south.

and, in the South Sea.—At Cook's Inlet, N. W. coast of America, Walker's Isles, and Otaheite.

To what places is the sun rising, to what places is he setting, and where is it noon and midnight, on the 21st June, 23d September, 21st December, and 20th March, when it is 6 and 10 A. M., and 6 and 10 P. M. at Edinburgh, Paris, London, Rome, Constantinople, Cairo, Bombay, Calcutta, Sydney, Pekin, Lima, Mexico, and Quebec?

PROB. XIV.—*Given the place and the day of the month, to find the beginning, end, and duration of twilight.*

RULE.—Rectify the globe for the latitude of the given place, bring the sun's place in the ecliptic on the given day to the brass meridian, set the hour circle to XII., and fix the quadrant of altitude on the brass meridian over the given latitude: turn the globe westward till the sun's place comes to the edge of the horizon—and the hours passed over on the hour circle will show the time of the sun's setting or the beginning of evening twilight: continue the motion of the globe till the sun's place comes to  $18^{\circ}$  on the quadrant of altitude below the horizon—then the time on the hour circle shows when twilight ends; and the difference between that and the hour of sunset is the duration of twilight. The beginning of morning twilight and the time of the sun's rising are found by turning the globe eastward.

Ex.—Find the beginning, end, and duration of twilight at Edinburgh, on the 20th of August.—Ans. Morning twilight begins 1h. 45', ends 4h. 45'. Evening twilight begins 7h. 15', ends 10h. 15', duration 3h.

Find the beginning, etc., of twilight at Edinburgh, Paris, Dublin, London, and Birmingham, on the 1st and 15th of each month of the year.

PROB. XV.—*A place in the torrid zone being given, to find on what two days of the year the sun will be vertical there.*

RULE.—Find the latitude of the place, turn the globe, and observe the two points of the ecliptic that pass under the degree of latitude:—opposite to these points, on the wooden horizon, will be found the days required.

Ex.—On what days is the sun vertical at Madras, St Helena, Cape Comorin, Lima, Cape Verde?—Ans. April 25th and August 18th;—February 5th and November 6th;—April 11th and September 2d;—February 17th and October 25th;—April 30th and August 13th.

On what days is the sun vertical at Bogota, Cuzco, Mexico, Porto Bello, Port Republicain, Kingston in Jamaica, Paramaribo, Pernambuco, Bahia, Truxillo, Cape St Roque, Sierra Leone, Fernando Po, Timbuctoo, Sackatoo, Coomassie, Mecca, Mocha, Candy, Seringapatam, Bankok, Batavia, Manilla, and Surinam?

PROB. XVI.—*Given the month and day at any given place (not in the frigid zones), to find what other day of the year is of the same length.*

RULE.—Bring the sun's place in the ecliptic for the given day to the brass meridian, and observe the degree above it; turn the globe till some other point of the ecliptic falls under

the same degree of the meridian; find this point of the ecliptic on the horizon, and directly against it is the day of the month required.

Ex.—What other days of the year are of the same length at Edinburgh, as April 30th and September 1st?—Ans. Aug. 12th and April 11th.

What other days of the year are of the same length at Vienna, as March 1st, May 1st, July 1st, August 1st, October 1st, January 1st?

**PROB. XVII.**—*To find the sun's meridian altitude at any given place, on a given day.*

**RULE.**—Rectify the globe for the latitude of the place; bring the sun's place for the given day to the meridian:—the number of degrees between that place and the horizon shows the altitude required.

Ex.—What are the meridian altitudes of the sun at London on the 11th January, at Constantiople on the 8th November, at Pekin on the 4th July?—Ans.  $16\frac{1}{2}^{\circ}$ ;  $-32\frac{1}{2}^{\circ}$ ;—and  $73^{\circ}$ .

What are the sun's meridian altitudes on the 1st and 15th of each month, from 1st June to 1st January, at Edinburgh, London, Dublin, Paris, Batavia, Sydney, Quebec, Sierra Leone, Mexico, Bankok, Mocha, Ispahan, Jerusalem, and the Mauritius?

**PROB. XVIII.**—*To find the altitude and azimuth of the sun at any given place and hour.*

**RULE.**—Rectify the globe for the latitude; bring the sun's place to the meridian, and set the index to XII. noon; turn the globe till the index points to the given hour, then fix the quadrant of altitude in the zenith, and lay it over the sun's place:—the degree on the quadrant, over the sun's place, will show the altitude; the number of degrees on the horizon, reckoned from the north or south pole to the graduated edge of the quadrant, shows the azimuth.

Ex.—What are the altitude and azimuth of the sun at Berlin on the 12th August, at 10 o'clock forenoon? at Cadiz on the 8d October, at 1 o'clock afternoon? at Hamburg on the 17th March, at 10 o'clock forenoon?—Ans. Alt.  $45^{\circ}$ , az.  $43\frac{1}{2}^{\circ}$ ;—alt.  $47^{\circ}$ , az.  $21\frac{1}{2}^{\circ}$ ;—alt.  $30^{\circ}$ , az.  $35\frac{1}{2}^{\circ}$ .

What are the altitude and azimuth of the sun on the 1st and 15th of each month, from 1st December to 1st July, when it is 9 and 10 A.M., and 1 and 2½ P.M., at Edinburgh, Petersburg, Paris, Lisbon, Madrid, Vienna, Buda, Naples, Malta, Algiers, Cape Town, Sydney, Pekin, Quebec, New York, Arequipa, Monte Video, Santiago, and Jesso?

**PROB. XIX.**—*To find at what hours the sun is due east and due west on any day at a given place.*

**RULE.**—Rectify the globe for the latitude of the place, bring the sun's place in the ecliptic for the given day to the meridian, and set the index to XII.; fix the quadrant of altitude on the brass meridian over the latitude of the place, and bring the other end of it to the E. point of the horizon; keep the quadrant in this position, and turn the globe till the sun's place comes to the graduated edge of the quadrant;—the hours

passed over by the index show the time from noon when the sun is due east or west.\*

Ex.—At what hours is the sun due east and due west at Edinburgh on the 1st of May? At what hours is the sun due east and due west at the Cape of Good Hope on the 1st of December?—Ans. Due east at 6h. 30' A. M., and due west at 5h. 30' P. M.; due east at 8h. 20' A. M., and due west at 3h. 40' P. M.

At what hours is the sun due east and due west at Petersburg, Stockholm, London, Dublin, Glasgow, Paris, and Rome, on the 1st and 15th of April, May, June, July, and August?

**PROB. XX.**—*Given the latitude of the place, day of the month, and the sun's altitude, to find the sun's azimuth and the hour of the day.*

**RULE.**—Rectify the globe for the latitude of the place, fix the quadrant of altitude on the brass meridian over the given latitude, bring the sun's place in the ecliptic to the brass meridian, and set the hour circle to XII.; turn the globe till the sun's place in the ecliptic coincides with the given altitude on the quadrant:—the hours passed over on the hour circle will show the time from noon, and the azimuth will be found on the horizon as in Prob. XVIII.

Ex.—What are the hour of the day and the sun's azimuth at Edinburgh on the 1st of August, the altitude of the sun being  $36^{\circ}$ ?—Ans. 8h. 40' A. M., and 8h. 20' P. M. Azimuth  $69^{\circ} 37'$ .

Find the hour of the day and the sun's azimuth at Edinburgh, Belfast, Liverpool, Berlin, Rome, and Geneva, on the 15th of each month of the year, when the sun's altitude is  $20^{\circ}$ ,  $30^{\circ}$ , and  $35^{\circ}$ .

**PROB. XXI.**—*To find the latitude of a place from the sun's meridian altitude on a given day.*

**RULE.**—Bring the sun's place in the ecliptic for the given day to the upper part of the brass meridian; count the number of degrees of altitude from it, towards the north or south points of the horizon (according as the sun was north or south of the place of observation),† and mark at what degree it ends; then bring this degree to the north or south point of the horizon,—and the elevation of the contrary pole will show the latitude.

Ex.—On the 1st of May 1835, the sun's meridian altitudes were observed to be at different places,  $22^{\circ}$ ,  $32^{\circ}$ ,  $40^{\circ}$ , and  $56^{\circ}$ ; the sun being north of the observer: What were the latitudes of the places of observation?—Ans.  $53^{\circ}$ ;— $43^{\circ}$ ;— $35^{\circ}$ ;—and  $19^{\circ}$  S.

On the 1st of August, the sun's meridian altitudes were observed at several places to be  $15^{\circ}$ ,  $25^{\circ}$ ,  $32^{\circ}$ ,  $49^{\circ}$ , the sun being to the south of the observer; and  $12^{\circ}$ ,  $21^{\circ}$ ,  $37^{\circ}$ ,  $43^{\circ}$ , and  $71^{\circ}$ , the sun being to the north of the observer: What are the latitudes of these places?

\* If the latitude and the declination are both north or both south, the sun will be due east and due west when he is above the horizon; but if the one is north and the other south, then the sun is below the horizon.

† To limit the problem, it is necessary to mention whether the sun is to the north or south of the place of observation.

**PROB. XXII.**—*To find all the places to which an eclipse of the sun or of the moon will be visible at any instant.*

**RULE.**—Rectify the globe for the latitude of the place to which the sun is vertical at the given instant, and bring it to the meridan:—the eclipse, if of the sun, will be visible to all the places which are above the horizon; if of the moon, to all the places which are under the horizon.

**Ex.**—There was a total eclipse of the moon at Greenwich on the 2d September 1830, at 11 o'clock evening; to what places was it then visible? There was an eclipse of the moon on the 2d February 1831, at Greenwich, partly visible at about 5 o'clock in the evening; to what places was it then visible?—**Ans.** The line of visibility stretches from the Gulf of the 72 Islands at the mouth of the Yenesei, in Siberia, to Java Head, cutting the equator in  $105^{\circ}$  E. longitude, and on the W. from Discovery Island, in Davis' Straits, to Lima in Peru, cutting the equator in  $75^{\circ}$  W. longitude.—The line of visibility stretches from Iceland to Bathurst, in the S. E. of Cape Colony, cutting the equator into  $15^{\circ}$  E. long.; from Iceland in a direct line, to Cape Fairweather, on the N. W. coast of America, and thence to the islands of New Zealand, cutting the equator in  $166^{\circ}$  W. long.

The moon was eclipsed at Greenwich on the 6th January 1833, at 8 o'clock A.M.; to what places was the eclipse then visible? The moon was eclipsed at Greenwich, on the 1st July 1833, at midnight; to what places was the eclipse then visible? The sun was eclipsed at Greenwich, July 17th, 1833, at 6 o'clock A.M.; to what places was it then visible? The moon was eclipsed at Greenwich, December 26th, 1833, at 9h. 30' P.M.; to what places was it then visible? The moon was eclipsed at Paris, December 16th, 1834, at 5 o'clock A.M.; to what places was it then visible?

**PROB. XXIII.**—*Any place in the north frigid zone being given, to find how long the sun shines there without setting, and how long he is totally absent.*

**RULE.**—Subtract the latitude of the place from  $90^{\circ}$ ; the remainder is the sun's declination N. when the longest day begins and ends, or his declination S. when the longest night begins and ends. Observe what degree in the ecliptic on each side of  $30^{\circ}$   $\Pi$ , and on each side of  $30^{\circ}$   $\uparrow$ , agrees with the declinations, and find the days corresponding to them on the horizon. The days answering to the sun's place west of  $30^{\circ}$   $\Pi$ , and west of  $30^{\circ}$   $\uparrow$ , will be, the former the commencement of the longest day, and the latter that of the longest night; and the days agreeing with the sun's place east of  $30^{\circ}$   $\Pi$ , and east of  $30^{\circ}$   $\uparrow$ , will give, the former the end of the longest day, and the latter the end of the longest night.

**Ex.**—What is the length of the longest day and night at the North Cape in Lapland and the northern point of Nova Zembla? Captain Parry wintered on Melville Island, in  $75^{\circ}$  N. lat.: how long was he involved in darkness?—**Ans.** The longest day begins May 15th, ends July 29th; the longest night begins November 17th, ends January 26th; the longest day begins April 25th, ends August 19th; the longest night begins October 28th, ends February 14th;—from November 3d to February 8th.

What are the lengths of the longest day and longest night at Fury and Hecla Strait, Fair Foreland in Spitzbergen, Cape Munster in Nova Zembla, North-east Cape in Siberia, Icy Cape, Croker Bay, Port Bowen, Discovery Island?

**PROB. XXIV.—To find the antœci\* of a place.**

**RULE.**—Find the latitude of the place given;—at the corresponding latitude on the opposite side of the equator of the same meridian are the antœci.

**Ex.**—Who are the antœci of the inhabitants of Barca,—of Quebec,—of Oporto?—**Ans.** The people of Cape Colony;—the Patagonians;—The inhabitants of Gough's Isle.

Who are the antœci of St Helena, Cape Desolation, Greenland, Fortune Land, Valdivia, Ripen in Denmark, Alexandria, Nippon, Tasmania?

**PROB. XXV.—To find the periceci† of a place.**

**RULE.**—Bring the given place to the meridian, and observe the degree above it; set the index to XII. noon, and turn the globe till the index points to XII. midnight:—under the same degree of the meridian on the same side of the equator as the given place, are the periceci of that place.

**Ex.**—Who are the periceci of the people of Petersburg, Cashmere, Mooltan, Mexico?—**Ans.** The inhabitants of Montagu Island?—Paso del Norte in Mexico;—Arispè in Mexico;—Kimedý in Hindostan, nearly.

Who are the periceci of Amsterdam, Quito, St John's in Newfoundland, St Domingo, Barbadoes, Palawan, London?

**PROB. XXVI.—To find the antipodes‡ of a place.**

**RULE.**—Bring the given place to the meridian, and observe its latitude; set the index to XII. noon, and turn the globe till the index points to XII. midnight:—under the same degree of latitude as the place given, but on the opposite side of the equator, will be found the antipodes.

**Ex.**—Who are the antipodes of the inhabitants of Bantam, Botany Bay, island of Borneo, Cape Horn?—**Ans.** The people of Tunja in New Granada;—the Azores, nearly;—Brazil and Ecuador;—Kirensk in Siberia, nearly.

Who are the antipodes of Guiana, Cambodia, Santa Fè in La Plata, Corea, island of Hainan, island of Kiusiu?

\* The antœci are those who live under the same meridian, and have the same latitude, but on opposite sides of the equator; they have noon at the same time, but their summer and winter at opposite periods of the year.

† The periceci live under the same degree of latitude, but differ 180° in longitude; consequently, they have their summer and winter at the same times, but their day and night at opposite times.

‡ Antipodes have the same latitude on opposite sides of the equator, and differ 180° in longitude; consequently, they have their day and night, their summer and winter, at opposite times.

## THE CELESTIAL GLOBE.

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**THE** Celestial Globe is a representation of the heavens, on which are traced the circles necessary for finding the position of the stars. It is suspended in a brass meridian supported on a wooden horizon, in the same manner as the Terrestrial Globe.

The two points in which the equinoctial intersects the ecliptic are called the Equinoctial Points. The first point of Aries, or that at which the sun appears to cross the equinoctial towards the north, is the vernal equinoctial point; the first point of Libra, at which the sun appears to recross the equinoctial towards the south, is the autumnal equinoctial point. When the sun is in either of these two points, the day and night are equal on every part of the earth.\*

The first point of Cancer and the first point of Capricorn are called the Solstitial Points. When the sun is in the first point of Cancer, it is the summer solstice, and we have our longest day; when he is in the first point of Capricorn, it is the winter solstice, and we have our shortest day.†

The right ascension of a star is the distance, measured eastward upon the equinoctial, from the first point of Aries to the point where a great circle drawn through the star, and perpendicular to the equinoctial, intersects it.

The latitude of a star is the distance between the star and the ecliptic, measured upon a great circle drawn through the star, and perpendicular to the ecliptic; the longitude is the distance between the first point of Aries and the point where the circle cuts the ecliptic. Longitude, latitude, and declination,‡ are expressed in degrees, minutes, etc., and right ascension in hours, minutes, etc. The sun has no latitude, as he is always in the ecliptic.

The signs and degrees are usually marked on one side of the ecliptic, and the days of the month on the other.

A Constellation is an assemblage of stars distinguished by the name of some animal or object to which the outline of the whole is supposed to bear a resemblance,—as the Bear, the Dragon, Orion, Boötes, the Crown, etc.

The Zodiac is an imaginary belt around the heavens, about 16 degrees broad, in which all the larger planets move. Through the middle of this belt runs the ecliptic, or the apparent path of the sun.

\* The vernal equinox happens on the 20th or 21st of March; the autumnal equinox on the 23d of September.

† The summer solstice happens on the 21st or 22d of June; the winter solstice on the 21st or 22d of December.

‡ The declination of a star is its distance north or south of the equinoctial.



## PROBLEMS TO BE SOLVED BY THE CELESTIAL GLOBE.

**PROB. I.**—*To find the latitude and longitude of a star.*

**RULE.**—Bring the pole of the ecliptic to the zenith, in which fix the quadrant, and lay it over the given star:—the number of degrees between the ecliptic and the star shows the latitude; the number of degrees between the edge of the quadrant and the first point of Aries indicates the longitude.

**Ex.**—What are the latitude and longitude of Procyon in Canis Minor, of Sirius in Canis Major, and of Arcturus in Boötes?—Ans. Lat.  $16^{\circ}$  S., and long.  $114^{\circ}$ ;—Lat.  $40^{\circ}$  S., and long.  $101^{\circ}$ ;—Lat.  $30\frac{1}{2}^{\circ}$  N., and long.  $201^{\circ}$ .

What are the latitude and longitude of Aldebaran, Bellatrix, Deneb, Dubhe, Alphecca, Altair, Markab, Fomalhaut, Antares, Canopus, Rigel, Ras Alhagus, and Achernar?

**PROB. II.**—*To find a star's place in the heavens, its latitude and longitude being given.*

**RULE.**—Set the globe and quadrant as in the last problem; then lay the graduated edge of the quadrant on the given longitude in the ecliptic,—and the star will be found under the given latitude.

**Ex.**—What star is that whose longitude is  $85^{\circ}$ , and whose latitude is  $16^{\circ}$  S.? What star is that whose longitude is  $297^{\circ}$ , and whose latitude is  $80^{\circ}$  N.?—Ans. Betelgeux in Orion;—and Altair in Aquila.

What are the stars whose latitudes and longitudes are  $23^{\circ}$  N. and long.  $54^{\circ}$ ;  $22\frac{1}{2}^{\circ}$  N. and long.  $79^{\circ}$ ;  $60^{\circ}$  N. and long.  $334^{\circ}$ ;  $28^{\circ}$  N. and long.  $40^{\circ}$ ;  $36^{\circ}$  N. and long.  $260^{\circ}$ ;  $4^{\circ}$  S. and long.  $247^{\circ}$ ;  $17^{\circ}$  S. and long.  $28\frac{1}{2}^{\circ}$ ;  $2^{\circ}$  S. and long.  $201^{\circ}$ ;  $60^{\circ}$  S. and long.  $341^{\circ}$ ?

**PROB. III.**—*To find the declination of the sun or a star.*

**RULE.**—Bring the sun's place, or the star, to the meridian; observe its distance N. or S. from the equinoctial,—and the distance will be the declination.

**Ex.**—What is the declination of the sun on the 11th April? What is the declination of Castor in Gemini, and of Regulus in Leo?—Ans. Declination  $8\frac{1}{2}^{\circ}$  N.;— $32\frac{1}{2}^{\circ}$  N.;—and  $18^{\circ}$  N.

What is the declination of the sun on the 1st and 15th of each month, from July 1st to January 1st? What is the declination of each of the stars mentioned in PROB. I.?

**PROB. IV.**—*To find the right ascension of the sun, or any star.*

**RULE.**—Bring the sun's place, or the star, to the meridian;—the degree of the equinoctial, cut by the meridian, shows the right ascension.

**Ex.**—What is the sun's right ascension on the 5th July and the 13th October? What is the right ascension of  $\alpha$  Lyrae, of Aldebaran in Taurus, and of Rigel in Orion's Foot?—Ans. Right ascension 6h. 56';—13h. 12';—18h. 31';—4h. 26';—5h. 6'.

What is the right ascension of the sun on the 1st, 10th, and 20th of each month of the year? What is the right ascension of each of the stars mentioned in PROB. I.?

**PROB. V.**—*The right ascension and declination of any of the heavenly bodies being given, to find its place on the globe.*

**RULE.**—Bring the given degree of right ascension to the brass meridian,—and under the given degree of declination on the brass meridian is the place of the body.

**Ex.**—What star has 13h. 42' right ascension and 50° 3' declination N.?—**Ans.**  $\eta$  Ursae Majoris.

What stars have 0h. 1' R. A. and 28° 16' dec. N.;—5h. 7' R. A. and 8° 23' dec. S.;—6h. 39' R. A. and 16° 31' dec. S.;—10h. 0' R. A. and 12° 41' dec. N.;—14h. 9' R. A. and 19° 57' dec. N.;—16h. 20' R. A. and 26° 6' dec. S?

**PROB. VI.**—*The latitude of a place, the day and hour being given, to represent the face of the heavens, so as to point out all the constellations and remarkable stars then visible.*

**RULE.**—Rectify the globe for the latitude of the place; bring the sun's place for the given day to the meridian; set the index to XII., then turn the globe till the index points to the given hour. In this position the globe will represent the face of the heavens.

**Ex.**—Represent the face of the heavens as it will appear at London for 2 and 8 in the morning on the 18th January; for 8 and 11 evening on the 12th March.

Represent the face of the heavens for the 1st and 15th of each month of the year, and for each hour from 9 P.M. to 8 A.M., as it will appear at Edinburgh, Paris, Cape of Good Hope, Paramatta, and Calcutta.

**PROB. VII.**—*To find the time when any of the heavenly bodies rises, sets, or comes to the meridian, on a particular day, at a given place.*

**RULE.**—Rectify the globe for the latitude of the place; bring the sun's place to the meridian, and set the index to XII.; then turn the globe till the given star comes to the eastern edge of the horizon,—the index will show the time of rising; carry it to the western edge,—the index will show the time of setting; then bring it to the meridian,—and the index shows the time of its culmination or southing.\*

**Ex.**—At what time does Regulus, in Leo, rise, set, and culminate at Edinburgh, on the 4th of February? At what time does Alphecca, in Corona Borealis, rise, set, and culminate at Madrid, on the 7th of May?—**Ans.** Rises 5h. 25' A., souths 0h. 45' M., and sets 8h. 5' M.;—rises 4h. 50' A., souths 0h. 35' M., and sets 8h. 20' M.

At what time does each of the stars mentioned in Prob. I. rise, culminate, and set, on the 1st and 15th of each month of the year, at the places mentioned in the last Problem?

\* In turning round the globe it will be observed that some of the stars do not descend below the horizon, while others in the opposite point of the heavens continue always below it. The former never set at the given place for which the globe is rectified, and are called *circumpolar stars*; the latter never rise at the given place

**PROB. VIII.**—*To find on what day of the year a star comes to the meridian at a given hour.*

**RULE.**—Bring the star to the brass meridian, and set the index to the given hour; turn the globe till the index points to XII. noon,—and the day of the month which corresponds to the degree of the ecliptic cut by the meridian is the day required.

**Ex.**—On what day does Rigel, in Orion, come to the meridian at 8 o'clock in the evening? On what day does Sirius come to the meridian at 10 o'clock evening?—Ans. February 3d;—January 28th.

On what day does Aldebaran come to the meridian at 7, 8, 10, 12 P.M. and 2, 4, 6 A.M.?—On what days do each of the stars mentioned in PROB. I. come to the meridian at 7, 9, 11 P.M. and 1, 3, 5 A.M.?

**PROB. IX.**—*To find the amplitude of any star, its oblique ascension and descension, and its diurnal arc, at any given place.*

**RULE.**—Rectify the globe for the latitude of the place, and bring the given star to the eastern part of the horizon;—the number of degrees between the eastern point of the horizon and the star will be its rising amplitude, and the degree of the equinoctial cut by the horizon will be the oblique ascension: set the hour circle to XII., and turn the globe westward till the given star comes to the western edge of the horizon,—the hours passed over on the hour circle will be the star's diurnal arc, or the time of its continuance above the horizon. The setting amplitude is the number of degrees between the western point of the horizon and the star, and the oblique descension is that degree of the equinoctial intercepted by the horizon, reckoning from the first point of Aries.

**Ex.**—Required the amplitude, the oblique ascension and descension, and the diurnal arc of Rigel, at Edinburgh?—Ans.  $15^{\circ}$  E., amplitude at rising;  $15^{\circ}$  W. at setting; oblique ascension  $88\frac{1}{2}^{\circ}$ , descension  $64^{\circ}$ , and its diurnal arc 10h. 20'.

Required the amplitude, the oblique ascension and descension, and the diurnal arc of Aldebaran, Capella, Rigel, Sirius, Regulus, Arcturus, and Vega, at London, Paris, Vienna, Constantinople, and Moscow.

**PROB. X.**—*To find the altitude and azimuth of the sun or a star at any given place and time.*

**RULE.**—Rectify the globe for the latitude of the place; bring the sun's place in the ecliptic and XII. on the hour circle to the brass meridian; and fix the quadrant in the zenith; then turn the globe till the given hour comes to the meridian, and lay the graduated edge of the quadrant on the star;—the degree of the quadrant over the star will show its altitude, and the number of degrees counted upon the horizon, from its intersection by the quadrant to the north or south point, will be its azimuth.

**Ex.**—At Edinburgh, on the 4th August, at 10h. P.M., what are the altitude and azimuth of Mirach, Almaach, and Altair?—Ans. Alt.  $29^{\circ}$ , az-

69° from N. towards E.;—alt.  $28\frac{1}{2}^{\circ}$ , az.  $56\frac{1}{2}^{\circ}$  from N. towards E.;—alt.  $42^{\circ}$ , az.  $12\frac{3}{4}^{\circ}$  from S. towards E.

At Edinburgh, on the 31st December, at 9h. and 11h. P.M., what are the altitude and azimuth of Capella, Dubhe, Regulus, Alioth, Castor, Procyon, Bellatrix, Sirius, Menkar, Algenib, Mirach, Algol, Shedir, Alderamin, Arided, and  $\alpha$  Lyræ?

At London, on the 1st March, at midnight, what are the altitude and azimuth of Kochab, Arided,  $\alpha$  Lyræ, Albireo, Alphecca, Ras Alhagus, Yed, Arcturus, Benetnach, Spica Virginia, Regulus, Cor Hydræ, Sirius, Castor, Pollux, Betelgeux, Procyon, Capella, Aldebaran, the Pleiades, Algol, Almaach, Shedir?

**PROB. XI.**—*To find what stars are rising, setting, or culminating at any given time and place.*

**RULE.**—Rectify the globe for the latitude of the place; bring the sun's place in the ecliptic to the brass meridian, and set the hour circle to XII.; then turn the globe eastward or westward, according as the time is before or after noon, till the given hour comes to the meridian:—then all the stars on the eastern edge of the horizon will be rising; those under the brass meridian culminating; and those on the western edge of the horizon setting; all above the horizon will be visible, all under it invisible.

**Ex.**—At Edinburgh, on the 5th August, at 11 o'clock A., what stars are rising, what culminating, and what setting?—Ans. Rising, Piscis Australia,  $\epsilon$  2,  $\eta$  Ceti,  $\delta$  Tauri,  $\alpha$  Aurigæ. Culminating,  $\epsilon$  Ursæ Majoris, 15 and 17 Anseris et Vulpeculæ;  $\zeta$  Antinoi. Setting, Vindemiatrix Virginia, Zuben ha Krabi,  $\eta$ ,  $\theta$ , and  $\beta$  Librae;  $\alpha$ ,  $\gamma$  1,  $\gamma$  2,  $\lambda$ , Sagittarii.

What stars, are rising, culminating, and setting at Edinburgh, Rome, Cairo, Cape of Good Hope, Sydney, Bombay, and Calcutta, on the 20th of each of the months of the year, at 10h. A. and 2h. M.

**PROB. XII.**—*To find the distance of one star from another in degrees.*

**RULE.**—Lay the quadrant of altitude over the two stars, the division marked  $0^{\circ}$  being placed on one of them;—then the degree which falls upon the other shows the number of degrees between them, or their apparent angular distance as seen from the earth.

**Ex.**—Required the distance of Rigel from Antares, Vega, and Spica Virginia.—Ans.  $157^{\circ}$ ;  $145\frac{1}{2}^{\circ}$ ; and  $119^{\circ}$ .

Required the distance of Canopus from Algenib, Polaris, Aldebaran, Rigel, and Procyon, and also their distances from each other.

**PROB. XIII.**—*The latitude of a place, the altitude of a star, and the day of the month being given, to find the hour of the night.*

**RULE.**—Rectify the globe for the latitude; bring the sun's place to the meridian, and set the index to XII.; fix the quadrant in the zenith; then move the globe and quadrant till the star comes under the quadrant at the given altitude—and the index will show the hour required.

Ex.—At Edinburgh, on the 18th December, when the altitude of Aldebaran is  $46^{\circ}$ , what is the hour of the night? When, at the same place, the altitude of Capella, in Auriga, is  $70^{\circ}$  on the 20th of January, what are the hours of the night?—Ans. 9h. 15' P. M., and 0h. 45' A. M.;—7h. and 10h. 35' P. M.

At Edinburgh, on the 1st and 15th of June, when the altitude of Alphecca is  $50^{\circ}$ ,  $\alpha$  Lyrae  $41^{\circ}$ , Alderamin  $45^{\circ}$ , and Arided  $45^{\circ}$ , what are the hours of the night? At Paris, on the 1st of October and 15th of November, when the altitude of Markab is  $45^{\circ}$ , Altair  $49^{\circ}$ , Almaach  $45^{\circ}$ , the Pleiades  $27^{\circ}$ , and Aldebaran  $22^{\circ}$ , what are the hours of the night? At Calcutta, on the 1st January and 1st February, when the altitude of Menkar is  $66\frac{1}{2}^{\circ}$ , Rigel  $45^{\circ}$ , Betelgeux  $60^{\circ}$ , Procyon  $48^{\circ}$ , and Sirius  $50^{\circ}$ , what are the hours of the night?

PROB. XIV.—*The year and day being given, to find the place of a planet.*

RULE.—Find the sun's place for the given day, and bring it to the brass meridian; set the index to XII.; then find in the Nautical Almanac, or in the New Edinburgh Almanac, the time when the planet passes the meridian on the given day, and turn the globe till the index points to the hour thus found, find in the Almanac the declination of the planet for the same day,—and under the degrees of declination on the brass meridian is the place of the planet.

Ex.—What were the places of Venus and Jupiter on the 1st of August 1850?—Ans. Venus was in the constellation Libra, her R. A. being 11h. 12 $\frac{1}{4}$ ', and her declination  $6^{\circ} 13'$  N.; Jupiter was in the constellation Libra, his R. A. being 11h. 32', and his declination  $4^{\circ} 16\frac{1}{4}'$  N.

What were the places of Venus on the 19th December 1850, 1851, and 1852? What were the places of the moon on the 25th March 1850, 1851, and 1852? Find the places of the moon and of each of the planets for the 1st and 25th of each month of the years 1863, 1866, 1868, and 1870.

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## TABLE,

SHOWING THE LENGTH OF A DEGREE OF LONGITUDE ON ANY  
PARALLEL OF LATITUDE, BETWEEN THE EQUATOR AND THE  
POLES, THE EARTH BEING SUPPOSED A SPHERE.

Deg. of Lat.	Geog. Miles.	Eng. Miles.	Deg. of Lat.	Geog. Miles.	Eng. Miles.	Deg. of Lat.	Geog. Miles.	Eng. Miles.
1	59.99	69.10	31	51.43	59.24	61	29.09	33.51
2	59.96	69.07	32	50.88	58.61	62	28.17	32.45
3	59.92	69.02	33	50.32	57.97	63	27.24	31.38
4	59.85	68.94	34	49.74	57.30	64	26.30	30.29
5	59.77	68.85	35	49.15	56.62	65	25.36	29.21
6	59.67	68.74	36	48.54	55.91	66	24.40	28.11
7	59.55	68.60	37	47.92	55.20	67	23.44	27.00
8	59.42	68.45	38	47.28	54.46	68	22.48	25.89
9	59.26	68.26	39	46.63	53.72	69	21.50	24.76
10	59.09	68.06	40	45.96	52.94	70	20.52	23.64
11	58.89	67.84	41	45.28	52.16	71	19.53	22.50
12	58.68	67.60	42	44.59	51.36	72	18.54	21.35
13	58.46	67.34	43	43.88	50.55	73	17.54	20.20
14	58.22	67.07	44	43.16	49.72	74	16.54	19.05
15	57.95	66.76	45	42.43	48.88	75	15.53	17.89
16	57.67	66.43	46	41.68	48.01	76	14.52	16.72
17	57.38	66.10	47	40.92	47.14	77	13.50	15.55
18	57.06	65.73	48	40.15	46.25	78	12.47	14.36
19	56.73	65.35	49	39.36	45.34	79	11.45	13.19
20	56.38	64.95	50	38.57	44.43	80	10.42	12.00
21	56.01	64.52	51	37.76	43.50	81	9.39	10.81
22	55.63	64.08	52	36.94	42.55	82	8.35	9.62
23	55.23	63.62	53	36.11	41.60	83	7.31	8.42
24	54.81	63.14	54	35.27	40.63	84	6.27	7.22
25	54.38	62.64	55	34.41	39.64	85	5.23	6.02
26	53.93	62.12	56	33.55	38.65	86	4.19	4.82
27	53.46	61.58	57	32.68	37.64	87	3.14	3.61
28	52.97	61.02	58	31.80	36.63	88	2.09	2.40
29	52.47	60.44	59	30.90	35.59	89	1.05	1.21
30	51.96	59.85	60	30.00	34.56	90	0.00	0.00

# MATHEMATICAL GEOGRAPHY

AND

## ASTRONOMY.

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**ASTRONOMY** is the science of the heavenly bodies—that is, the Sun, Moon, Earth, and Stars. It treats of their forms, magnitudes, distances, relative situations, real and apparent motions, and actions on each other.

**MATHEMATICAL GEOGRAPHY** treats of the form and magnitude of the Earth, of the lines supposed to be drawn on its surface to define the positions of places, and of the relative positions of its different parts in respect to the heavenly bodies, especially the Sun.

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### CHAPTER I.

#### THE SPHERE OF THE HEAVENS.

**THE** surface of the sky or heavens appears to us as a concave or hollow sphere; and it is convenient to regard it as such, and to imagine various lines drawn upon it, for the sake of defining with precision the positions of objects.

The whole heavens appear to be in continual motion from east to west, carrying the sun, moon, and stars along with them, and completing one revolution in about 24 hours—or, more correctly, in 23 hours, 56 minutes, 4.09 seconds.

But this is only an apparent motion—caused by the rotation of the earth on its axis from west to east in the same time.

We know that we may be in motion without perceiving it, as in the cabin of a ship, or of a canal boat moving gently, we may be carried a long way without knowing that we have moved at all. We do not perceive motion when it is uniform, and when the bodies around us are moving at the same rate, so that we retain the same relative position to them. We know also that our motion may cause other bodies to appear to move which are really standing still, as when in a railway carriage we see the trees, hedges, and banks appear to flit rapidly past us, in a direction opposite to that in which we are moving. The apparent revolution of the whole heavens round the earth may thus be explained by the earth's rotation on its axis.

When the stars are observed, they all seem to move together from the east side of the horizon towards the west. Some rise very far south, ascend but a little way above the horizon, and set far south on the west side of the horizon: some rise in the east, ascend very high in the sky, and after describing a large curve in the heavens, set in the west: others rise and set north of due east and west: others do not set at all, but describe complete circles above the horizon round one point: others describe smaller and smaller circles round that point; and the stars very near that point appear, to judge by the naked eye, *not to move at all*.

That point is the NORTH POLE OF THE HEAVENS. There is a similar point opposite to it in the southern regions of the sky. These two points are the extremities of the imaginary line or axis, about which the heavens appear to turn or rotate daily. They are vertical at the poles of the earth, and in the horizon at its equator. And at any place on the earth's surface, the pole of the heavens, visible there, always appears in the same position in relation to fixed objects at that place, while every other point in the sky is continually changing its position in relation to them.

The poles of the heavens may also be defined as the points where the earth's axis produced would meet the sky.

There is a pretty bright star very near the north pole of the heavens, called the NORTH POLAR STAR, which may be easily found out.

The ancients had the starry heavens mapped out into constellations, each consisting of a collection of neighbouring stars, separated from the others by an imaginary line, and bearing a name, expressive of some figure which the leading stars in the constellation were supposed to resemble.

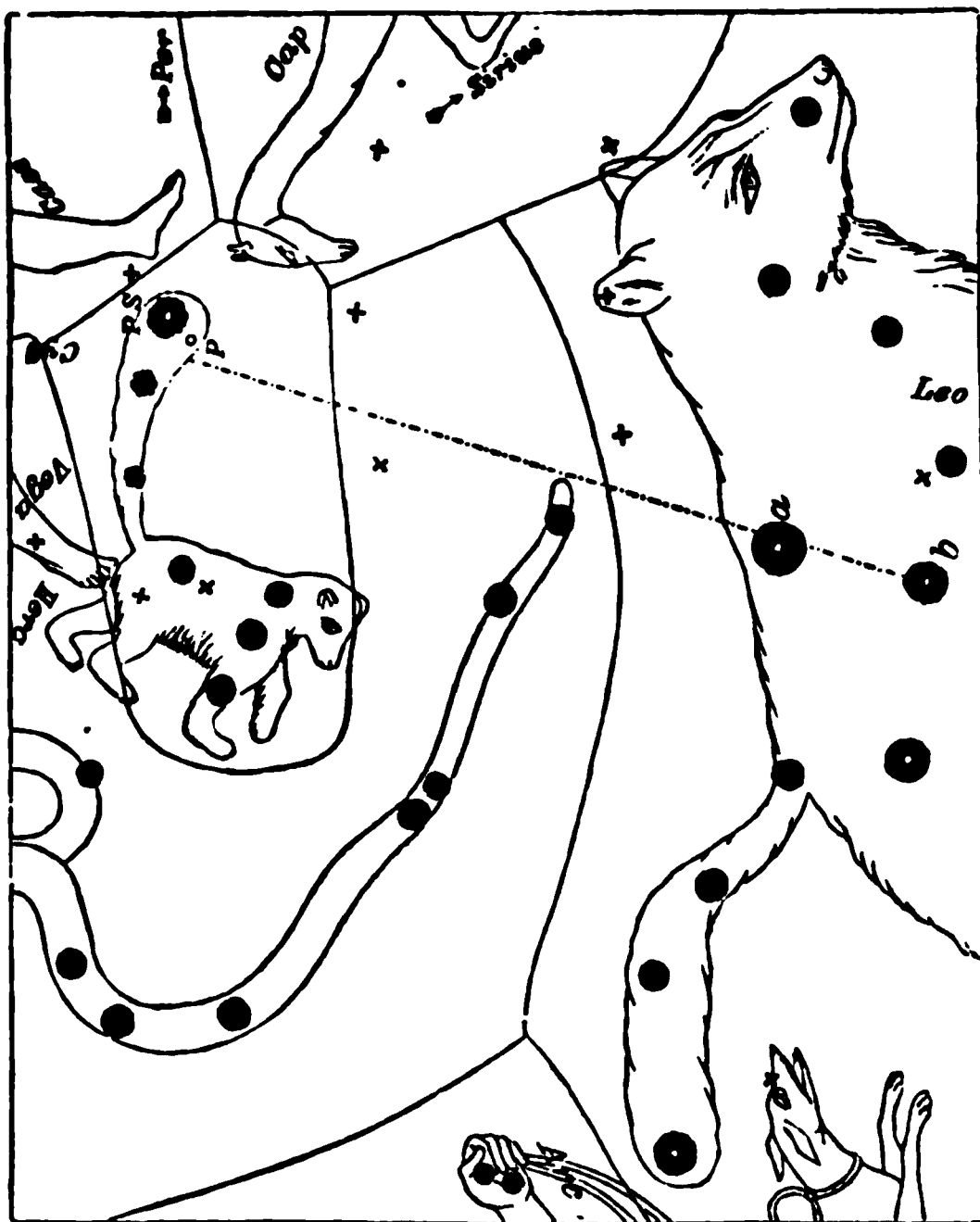
The stars in each constellation are named by the letters of the Greek alphabet,—the brightest being termed  $\alpha$  (alpha);



the next brightest  $\beta$  (beta), and so on. When there are more stars in a constellation than there are Greek letters, the others are denoted by numbers. The leading stars in each constellation have usually some name applied to each, as Dubhe, Capella, Vega, Arcturus, Aldebaran.

At the left side of Diagram 3 below, may be observed a cluster of stars disposed within the figure of a small bear, and

Diagram 2.



separated by a line from the adjoining stars. The stars within that line form a constellation, termed URSA MINOR, or the Little Bear. In the same diagram are seen parts of other constellations—the GREAT BEAR (Ursa Major); the DRAGON (Draco), the hand of BOÖTES, and the feet of CEPHEUS.

The north pole-star is the brightest star in the constella-

tion of the Little Bear, at the tip of its tail. It is marked P S in the diagram. It is easily found out by means of the well known seven bright stars commonly called *the Bear, the Plough, Charles's Wain*. These stars are represented in diagram 3, towards the lower part of the right side. If, when these stars are in any position, a line be imagined through the two (*b* and *a*) farthest from the tail, and be produced in a direction from the limbs of the animal, that line will pass close to the north polar star. These two stars are hence called "the Pointers."

These seven stars do not set in Great Britain. They are seen at one time between the pole-star and the horizon; at other times, higher in the sky, east or west of the pole-star; at other times, over head, nearly in the zenith.

If the direction of north be known, the pole-star may easily be found. Looking north, in Britain, it will be seen a little higher than halfway between the horizon and the zenith. The height of the pole above the horizon is always the same number of degrees, etc., as the latitude of the place.

By imaginary lines drawn with reference to the poles, the heavens are mapped out in the same way as the surface of the earth. Let Diag. 2, page 13, now be taken to represent a hemisphere of the heavens, the earth being shown by the black circle in the middle. N is the north pole of the heavens; S the south pole: the poles of the earth are where the line N S meets the black central circle.

A circle round the heavens equidistant from both poles is called the EQUINOCTIAL. One half of this circle is represented by the line E Q in the figure. It is called "equinoctial," from the Latin, *æquus*, equal, *nox*, night, because when the sun crosses this line in his apparent annual course round the heavens—which he does on March 20 and September 22—there is equal day and night all over the world. The equinoctial is the line which the plane of the earth's equator would make round the sky, if we imagine that plane produced so as to cut the sky.

Small circles round the heavens parallel to the equinoctial are called PARALLELS OF DECLINATION. See in Diag. 2, page 13, *z h, k o*, north of the equinoctial, *q 15, a b, m n*, etc., south of it.

Great circles passing through both poles of the heavens, as all the lines from N to S in Diag 2, are called HOUR CIRCLES, and sometimes CELESTIAL MERIDIANS.

Observations of the sun have shown that he appears to move round a great circle of the heavens in a year. This great circle is called the ECLIPTIC. It is represented by the line *a o* in Diag. 2.

The plane of the ecliptic makes an angle of  $23\frac{1}{2}^{\circ}$  with the plane of the equinoctial; so that the farthest north point of

the ecliptic is only  $66\frac{1}{2}^{\circ}$ , while the farthest south point is  $113\frac{1}{2}^{\circ}$  from the north pole of the heavens.

The sun is in the north or highest point of the ecliptic on June 21, and is then vertical at the tropic of Cancer. He is in the south or lowest point on December 21, and is then vertical at the tropic of Capricorn. When he crosses the equinoctial he is vertical at the equator.

The north part of the ecliptic, where the sun is in June, is in that part of the heavens a little south of a bright star called CAPELLA, which lies to the west of the Great Bear, but at a greater distance from the north pole.

The distance of a heavenly body north or south from the equinoctial is called its DECLINATION, north or south, and is usually marked D. N. or D. S. Thus, we say that the sun's declination north on the 21st of June is  $23\frac{1}{2}^{\circ}$ , or that he is in D. N.  $23\frac{1}{2}^{\circ}$ . Declination in the heavens corresponds to latitude on the earth.

The distance of a heavenly body east from an hour circle called the first hour circle, is termed its RIGHT ASCENSION. This resembles longitude on the earth, but is not reckoned east and west, being counted east all the way round from  $0^{\circ}$  to  $360^{\circ}$ . The first hour circle is that which passes through the point where the sun crosses the equinoctial in spring (March 20), called *the first point of Aries*, or the spring equinox.

In Diag. 2, page 13, if E Q be the equinoctial, and  $\alpha o$  the ecliptic, the point where they cross, in the centre of the figure, is the equinox or first point of Aries; and the hour circle passing through that point, represented by the straight line from N to S, is the first hour circle. The degrees of right ascension are seen marked in degrees and hours alternately *above* the line representing the equinoctial, at every 15 degrees.

As there are 360 degrees, and one revolution of the sphere is completed in 24 hours, each point in the heavens must move 15 degrees *west* in one hour. Hence the hour circles are sometimes named by *hours* instead of degrees. The same relation prevails as to time and degrees of longitude on earth—each point moves 15 degrees *east* in one hour.

The ecliptic is divided into 12 equal parts, of  $30^{\circ}$  each, called SIGNS, numbered from the first point of ARIES, which is the first of these signs. A belt of the heavens, extending a few degrees on each side of the ecliptic, is called the ZODIAC (from the Greek, *zodion*, the figure of an animal), from the constellations there being mostly figures of animals. Hence, these signs are often called SIGNS OF THE ZODIAC. The following table exhibits the signs of the zodiac, with the time of the sun entering into each, the characters used for each, and one or two other particulars:—

Ascending.			Descending.			Ascending.					
Pisces, the Fishes, ♓,	Aquarius, the Waterman, ♒,	Capricornus, the Goat, ♑,	Sagittarius, the Archer. ♐,	Scorpio, the Scorpion, ♏,	Libra, the Balance, ♎,	Virgo, the Virgin, ♍,	Leo, the Lion, ♌,	Cancer, the Crab, ♋,	Gemini, the Twins, ♊,	Taurus, the Bull, ♉,	Aries, the Ram, ♈,
Southern Signs.						Northern Signs.					
February 18.	January 21.	December 22.	November 22.	October 23.	September 23.	August 23.	July 23.	June 21.	May 21.	April 20.	March *20.
		the Southern Hemisphere).			Autumnal Equinox (day and night equal everywhere).			Summer Solstice (or mid-summer).		night equal everywhere).	Spring Equinox (day and

\* These dates vary a little in different years.

As the sun enters the sign Cancer on the 21st of June, the tropic at which he is then vertical is called the tropic of CANCER, and as he then retraces his course, that parallel (either on the earth or the heavens) is called a TROPIC, from the Greek, *trepo*, I turn. The tropic of CAPRICORN receives its name in the same way.

As the sun appears to pause or stand still a day or two before turning, the time is termed SOLSTICE (from the Latin, *sol*, the sun, *sto*, I stand)—December 22, the winter solstice; June 21, the summer solstice.

The signs of the zodiac, in which the sun appears when he is north of the equinoctial, are called the *northern signs*; those in

which he is when south of the equinoctial, the *southern signs*; those in which he is when passing in a northerly direction are called *ascending*; those in which he is when going south, *descending*.

On the first hour circle,  $23\frac{1}{2}^{\circ}$  from the north pole,  $90^{\circ}$  from every part of the ecliptic, there is a remarkable point called the **POLE OF THE ECLIPTIC**. This point is in the constellation DRACO, a little farther from the north pole than the ankle of Cepheus in Diag. 3.

The north pole of the heavens moves so as to describe a circle round the pole of the ecliptic in 25,868 years. The movement thus made is too slight to be apparent in a life-time; but in the course of ages the north pole will be far removed from the present pole-star, and will return to it again at the end of the above-mentioned period.

From this motion, which will be explained afterwards, the equinoctial points move backwards upon the ecliptic; and the signs of the zodiac, which were originally named from constellations in these signs, do not now correspond with these constellations; the sign Aries—meaning the first  $30^{\circ}$  from the spring or vernal equinox—is in the constellation Pisces; the sign Taurus in the constellation Aries, and so on.

The pupil should now endeavour to make himself acquainted with the positions and appearances of the following stars and constellations:—

The brightest star in the Great Bear, one of the pointers, marked  $\alpha$  in Diag. 3, and termed DUBHE, is in R. A. 10h. 53m., or about  $163^{\circ}$ ; D. N.  $62^{\circ} 37'$ .

A line drawn from about the middle of the tail of the Great Bear through the pole-star, and produced nearly as far on the other side of that star, will terminate in the constellation CASSIOPEIA, or the Lady in her Chair. The prominent stars in this constellation are five in number, and are arranged so as to make a figure somewhat like the letter W, but straggling, and with one angle of the W shorter than the other. Cassiopeia is one of the constellations in the Milky Way. The first hour circle passes through *Beta* of Cassiopeia, and close to *Delta* of the Great Bear, where the tail joins the body.

A straight line from the pole-star, perpendicular to the line joining the pointers and the pole-star, and on the same side of that line as the head of the Bear, passes close to a very bright star, CAPELLA; about twice as far from the pointers as the pole-star. This star is in R. A. 5h. 4m., or about  $76^{\circ}$ ; D. N.  $45^{\circ} 49'$ . This is the brightest and most northern of the stars in the constellation AURIGA, or the Charioteer. The principal stars in this constellation, along with one of Taurus, form an elongated five-sided figure, stretching from north to south, and very well marked.

A straight line from the pole-star, in the direction nearly opposite to the line passing by Capella, leads to another very

bright star, **VEGA**, the principal star in the constellation **LYRA**. Vega is in R. A. 18h. 31m., or about  $277^{\circ}$ ; D. N.  $38^{\circ} 38'$ . Capella and Vega are almost always visible in Great Britain. In about 12,000 years, the north pole will have moved half of its course round the pole of the ecliptic, and Vega, the brightest star near the point it will then occupy, will serve for a pole-star.

A straight line from the pole-star, passing near the star in the tip of the tail of the Great Bear, and twice the distance of the tail from the pole-star, leads to **ARCTURUS**, a very bright star, of a distinct reddish colour, the principal star in the constellation **BOÖTES**, or the Huntsman. Arcturus is in R. A. 14h. 8m., or about  $212^{\circ}$ ; and D. N.  $20^{\circ} 1'$ .

On the first hour circle south of Cassiopeia, in D. N.  $28^{\circ} 12'$ , is **ALPHORAT**, the principal star in the constellation **ANDROMEDA**. Alphorat, along with three pretty bright stars of the constellation **PEGASUS**, forms a prominent square in the heavens.

**ALDEBARAN**, the brightest star in **TAURUS**, is in R. A. 4h. 26m., about  $66^{\circ}$ ; and D. N.  $16^{\circ} 10'$ . It has a marked ruddy colour. The **PLEIADES**, or seven stars of **TAURUS**, a cluster by themselves, are in R. A. about  $54^{\circ}$ ; D. N.  $23^{\circ} 30'$ . **CASTOR** and **POLLUX**, the brightest stars in **GEMINI**, are very near each other—in R. A. about  $7\frac{1}{2}$ h.; D. N.  $28^{\circ}$  (Pollux),  $32^{\circ}$  (Castor).

**REGULUS**, the brightest star in **LEO**, is in R. A. 9h. 59m., about  $150^{\circ}$ ; D. N.  $12^{\circ} 45'$ . The leading stars in this constellation form a figure like a sickle, of which Regulus is in the handle. This great constellation is nearly due south of the Great Bear. **SPICA**, the brightest star in **VIRGO**, is in R. A. 13h. 16m., or about  $199^{\circ}$ ; D. S.  $10^{\circ} 19'$ .

The southern constellations of interest which are frequently visible in Great Britain are, **ORION**, **CANIS MINOR**, and **CANIS MAJOR**. They lie due south of **CAPELLA** and **GEMINI**, and are very prominent in the heavens during our winter. Orion forms a large striking four-sided figure, considerably elongated from north to south. In the middle are three stars, lying in a south-east and north-west direction, usually called **ORION'S BELT**. **BETELGEUX**, the brightest star, is in the north-east angle and is of a ruddy colour. **SIRIUS**, in the constellation **CANIS MAJOR**, the Greater Dog, and the brightest of the fixed stars, is south-east from Orion, R. A. about  $100^{\circ}$ ; D. S.  $16^{\circ} 30'$ . The Pleiades, Aldebaran, Orion's Belt, and Sirius, are nearly in one straight line. **PROCYON** (R. A.  $112^{\circ}$ ; D. N.  $5^{\circ} 37'$ ), a very bright star, in the constellation **CANIS MINOR**, or the Lesser Dog, is nearly due south from the Twins (**Gemini**), and due east from Betelgeux.

The **MILKY WAY**, a whitish belt passing round the heavens, runs between Procyon and Sirius, then north-west between Gemini and Orion, then through Auriga, south-west of Capella; it then passes through several minor constellations, and Cas-

siopeia, and south-west, splitting into two divisions, south of the constellation Cygnus or the Swan, not far from Vega.

With respect to the extent of the heavens visible at any place, the celestial sphere may be divided into three portions:—1. That part which never sets at the place (*i. e.* never sinks below the horizon), and the stars in which are always visible on clear nights. 2. That part which is only occasionally visible, being sometimes above, sometimes below the horizon of the place. 3. That part which is always below the horizon of the place, and therefore can never be seen from that place.

The CELESTIAL MERIDIAN of any place on earth means the HOUR CIRCLE which passes through the zenith of the place. The distance from the zenith to the horizon along that circle will be  $90^\circ$ .

At any place, the height of the pole of the heavens above the horizon (called *the elevation of the pole*) is always exactly equal to the latitude of the place. In other words, if we measure the number of degrees, etc., along the celestial meridian of a place from the horizon to the pole, we find that there are exactly as many as there are in the latitude of the place. The N. latitude of London is  $51^\circ 30' +$ , and there the north pole (or north polar star which is close to the pole) is  $51^\circ 30' +$  above the horizon. At Edinburgh, the elevation of the pole is  $55^\circ 57' +$ , for that city is in N. lat.  $55^\circ 57' +$ .

The distance in degrees, etc., of the zenith of a place from the equinoctial is the same as the elevation of the pole, or latitude of the place.

The distance of the zenith from the pole (called *the zenith distance of the pole*) is equal to the difference between the elevation of the pole and  $90^\circ$ ; at London,  $38^\circ +$ ; at Edinburgh,  $34^\circ +$ . And this is equal also to the elevation of the equinoctial above the horizon on one side, or its depression below the horizon on the other side of the heavens.

Thus, at London, the terrestrial latitude, elevation of the pole, and zenith distance of the equinoctial, are each  $51^\circ 30' +$ . The zenith distance of the pole, elevation of the equinoctial above the horizon, and its depression below the horizon, are each  $38^\circ +$ .

That part of the heavens, which lies between the pole and a parallel of declination the same distance from the pole as its elevation at the place, *never sets*. Thus, at London, the stars from the north pole,  $51^\circ 30'$  all round, can always be seen on a clear night. A parallel  $51^\circ 30'$  from the pole is  $38^\circ 30'$  from the equinoctial, that is about  $38^\circ +$ , D. N. If we look for that parallel on a map of the stars, we shall find north of it all the stars which may be seen at London.

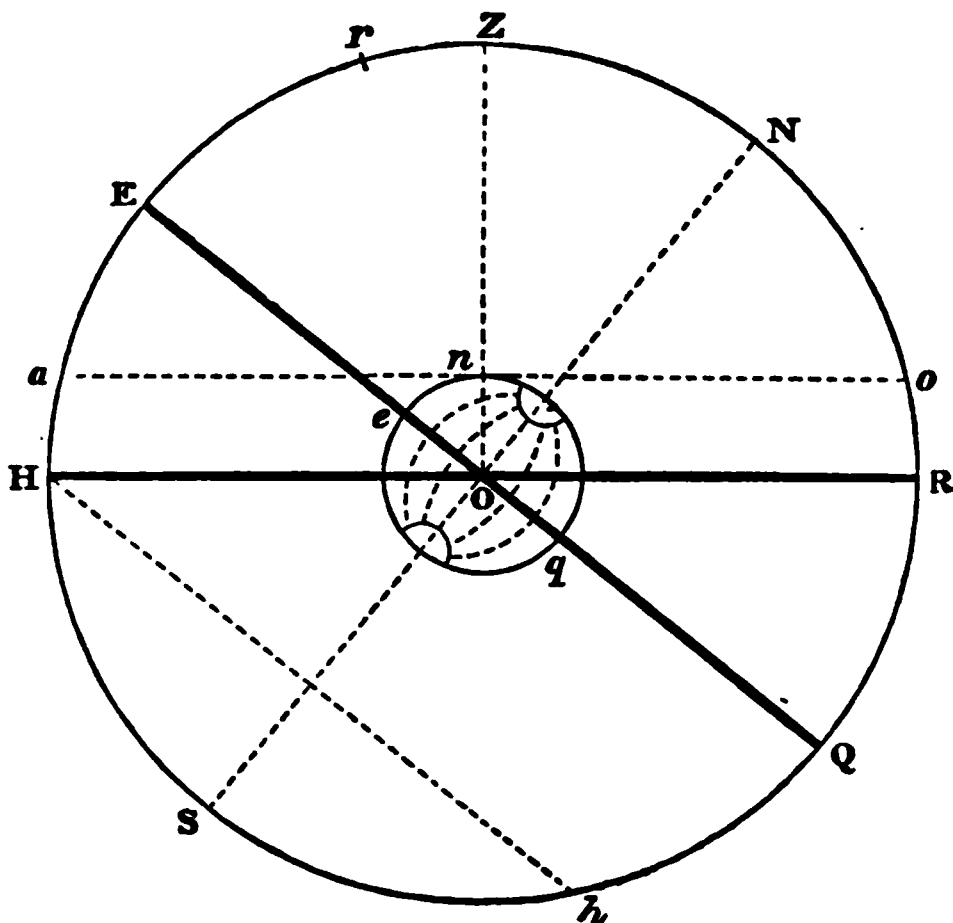
A like part of the heavens around the opposite pole *never*

*rises.* Thus, at London, the stars,  $51^{\circ} 30'$  all round from the south pole, or all those beyond  $38^{\circ} + D. S.$  are never seen.

The part of the sky forming the intermediate belt is sometimes above, sometimes below the horizon of the place. That belt extends as many degrees on each side of the equinoctial as there are degrees in the elevation of that line above the horizon. Thus, at London, the stars in the belt of sky from  $38^{\circ} + D. N.$  to  $38^{\circ} + D. S.$  (a breadth of  $76^{\circ} +$ ), are sometimes above, sometimes below the horizon.

This will be understood from the following diagram:—

Diagram 4.



Let the small circle in the middle represent the earth,  $n$  an observer on its surface, about the latitude of London or Edinburgh; the great outer circle, his celestial meridian; then  $Z$  will be his zenith. Let  $N$  be the north pole of the heavens,  $S$  the south pole, and let  $EQ$  represent the plane of the equinoctial; the part where it crosses the earth ( $eq$ ) will represent the earth's equator. From  $E$  to  $N$  will be  $90^{\circ}$ , and from  $Q$  to  $N$  also  $90^{\circ}$ . From  $S$  to  $E$  and to  $Q$  will be the same number of degrees, making  $360^{\circ}$  all round.

The dotted line  $ao$  will be the *sensible horizon* of the observer at  $n$ ; the points  $a$  and  $o$  being the parts of the sky below which he could not see the heavens for the earth interposing. Let  $HOR$  be a plane parallel to that of the sensible horizon, but passing through the centre of the earth. It is plain that, if the



inner circle representing the earth were smaller, the place of the observer,  $n$ , and also the line  $ao$ , would be proportionably nearer to  $HOR$ ; and that if the space in the diagram occupied by the earth were reduced to a mere point, the lines (or planes)  $ao$  and  $HOR$  would coalesce. Now this is actually the case with respect to the horizon of any place on the earth and the starry heavens. The distance from the earth's surface to its centre is as nothing—a mere point—in relation to the distances of the stars; and hence, in relation to them there is no practical difference between the sensible horizon  $ao$ , and a plane parallel to it passing through the earth's centre, which is called the RATIONAL HORIZON, and is represented by the line  $HOR$  in the diagram. We may therefore reason with respect to the starry heavens and the positions of the earth in relation to them, as if the observer at  $n$  were at the earth's centre  $O$ , and as if the distances  $aH$ ,  $oR$  in the sky, and  $nO$  were reduced to nothing.

$H$  and  $R$  being the points where the horizon meets the sky, the distances from  $Z$  to  $H$  and to  $R$  will be  $90^\circ$  each.

From  $Z$  to  $R$  being  $90^\circ$ , and from  $E$  to  $N$   $90^\circ$ , taking away the arc  $ZN$ , which is a part of each, there will remain the arc  $NR$ , the elevation of the pole, equal to the arc  $ZE$ , the zenith distance of the equinoctial; which it is manifest is the same number of degrees in the celestial meridian as  $nc$  on the terrestrial meridian, *which is the latitude of  $n$* .

Since  $HZ$ ,  $EN$ , and  $NQ$  are  $90^\circ$  each, by taking  $EZ$  from each of the first two, and the equal arc  $NR$  from the last, there remain  $EH$ , the elevation of the equinoctial above the horizon,  $ZN$ , the zenith distance of the pole, and  $RQ$ , the depression of the equinoctial below the horizon, all equal to each other, and equal to the difference between the elevation of the pole and  $90^\circ$ .

Now, in considering the apparent daily rotation of the sphere of the heavens, we may regard the observer at  $n$ , or rather at  $O$ , as fixed, and his horizon  $HOR$  as shutting out from his view all below the line  $HOR$ . Also, the points  $N$  and  $S$ , the poles of the heavens, maintain the same places. Hence, in rotating, all the stars from  $N$  by  $o$ ,  $R$ ,  $Q$ , and  $h$ , to  $S$ , will in 12 hours have come to like distances from  $N$  and  $S$  on the other side of these points, along the line  $NZEaHS$ ; and stars on that latter line will be on the opposite line from  $N$  by  $Q$  to  $Z$ .

A star at  $r$  (the same distance from  $N$  as  $R$ ) will in 12 hours be at  $R$ , just on the horizon; stars at  $R$  will have been elevated to  $r$ ; and all north of these points will have continued above the horizon during the whole rotation; that is, *always*, to the observer at the place  $n$ .

The stars from  $R$  by  $Q$  to  $h$  will in 12 hours come to the position  $rEH$ , any star at  $h$  being just upon the horizon at  $H$ , and the stars from  $r$  to  $H$  then sinking below the horizon, as from  $R$  to  $h$ .

The stars from  $h$  by  $S$  to  $H$ , in the rotation of the celestial

sphere, evidently cannot rise above the horizon at all. They are never seen at the latitude of  $n$ .

It may easily be shown that the arcs  $SH$ ,  $Sh$ , are each equal to  $EZ$  or  $NR$ ; and that the arc  $Qh$  is equal to each of the arcs  $EH$ ,  $QR$ , or  $ZN$ .

Thus at the latitude of  $n$ , the part of the heavens from  $r$  by  $N$  to  $R$ , never sets; the part from  $R$  to  $h$ , or  $r$  to  $H$ , is sometimes above, sometimes below the horizon; the part from  $H$  by  $S$  to  $h$ , is never above the horizon.

At London, *VEGA* just skirts the horizon when at the lowest point of its daily course; and *CAPELLA*, in the opposite quarter of the heavens, at its lowest point, is about  $7^\circ$  above the horizon; so that these two very bright stars are almost always visible in Great Britain, at about from  $50^\circ$  to  $45^\circ$  from the north polar star.

It must be observed that the motion of the earth round the sun, by which we undergo a change of place to the extent of no less than 190 millions of miles, makes no sensible difference in the relative positions of the earth and heavens. That enormous distance is but a mere point in comparison with the distance of the stars. At all times of the year, the pole of the heavens is in the same relative position to every place upon earth.

It will be observed, that though the stars in their daily rotations preserve the same relative positions at each place, they arrive at these positions at different times of the day; so that stars which are above the horizon during night at one season, are below the horizon during night, and cannot be seen, at another season. This arises from the time of one complete daily rotation of the starry sphere being a little different from the time occupied by the sun in its apparent daily revolution round the earth, which is called a solar day, and by which the periods of night and day and our divisions of the day are determined.

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## CHAPTER II.

### THE CONTENTS OF SPACE.

THE old notions which prevailed so long, that our Earth is a vast extended plain, round which the heavens revolve daily, and that the Sun and Stars, as well as the Moon, are subordinate to the Earth, and exist only to minister to the wants of its inhabitants, have given place to much more extended ideas of the numbers, magnitudes, distances, and purposes of the heavenly bodies.

The Earth is now ascertained to be one of a number of bodies, several of them much greater than itself, which are

connected with the Sun,—an immense orb, upwards of a million of times larger than the Earth—and dependent in many respects on that great luminary. These together constitute the SOLAR SYSTEM, which extends through space, to a distance of about 3000 millions of miles from the Sun; or about 80 times the distance of the Earth from the Sun; which is 92 millions of miles. Five of the more brilliant stars which are usually visible to the naked eye, namely, MERCURY, VENUS, MARS, JUPITER, and SATURN, belong to the Solar System. They are readily distinguished by the following marks; they are usually very near the ecliptic,—do not twinkle,—expand into a disc of sensible breadth when viewed through the telescope,—and have a motion among the stars, besides their apparent daily motion with the whole heavens round the earth, so that they appear in different constellations, at different times. Such stars are called *planets* from the Greek word *planetes*, *wanderer*. Other stars apparently more irregular in their movements, called *comets*, and bodies called *aerolites*, make up the Solar System, which will be described in Chapter IV.

The other stars which are usually seen in the heavens are called FIXED STARS, because they always appear to preserve the same positions in relation to each other. The stars in the constellation “Great Bear” appear to the oldest man living to be clustered in the same form as in his childhood. We know from good records that that form has not materially altered for hundreds of years. We have reason to believe that all the great constellations appear to us now just as they did to the astronomers who, long before the Christian era, arranged the stars in constellations, and gave them the names which they still bear,—names derived from the great heroes and heroines of antiquity, and so stamping on the heavens in indelible characters the great deeds and beautiful fables of old times.

The fixed stars are known to be at enormous distances. VEGA is at a distance of upwards of seventy-five millions of millions of miles (75,000,000,000,000 miles) from our system—nearly a million of times the distance of the earth from the sun. The nearest of the fixed stars whose distance has been subjected to measurement ( $\alpha$  Centauri) is yet 21 millions of millions of miles from the sun. And it is probable that many of the fixed stars are at distances far beyond these; becoming visible to us only by their great magnitude or brilliancy. When viewed through the telescope, they only appear brighter; they do not expand into sensible discs, as the planets do.

Bodies so distant cannot shine by reflecting light received from our sun. They must be luminous in themselves—many of them much larger and brighter than our sun; and they are believed to be themselves suns, probably performing, in the grand and wonderful scheme of creation, parts similar to that performed by the great centre of our solar system.

Those which are visible to the naked eye are divided into six *magnitudes*, as they are called, according to their brilliancy. About twenty are reckoned as of the first magnitude, of which *eleven* are visible in Great Britain. It is supposed that not so many as 2000 are at any time visible to the naked eye; but the telescope brings myriads into view. The pole-star is of the second magnitude.

The "fixed stars" are not absolutely fixed. Many of them change their positions in relation to each other. But this change, called their *proper motion*, is so very slight, that it must go on for thousands of years before it amounts to a change in position sensible to the naked eye. ARCTURUS moves north about 2" yearly, that is 1' in thirty years, or 1° in 1800 years. Though apparently a slight movement, from the great distance—that very distance shows us that it must in reality be an extremely rapid motion—perhaps more rapid than any motion in our own system.

Some of those fixed stars which appear single when viewed through an ordinary telescope, become resolved into a cluster or multitude of stars when examined by a powerful telescope. Perhaps each of these is a sun—the whole being a system of suns, separated by vast distances, but apparently near each other, in consequence of their enormous distance from us. These are called *Stellar Nebulæ*, that is nebulæ resolvable into separate stars.

Other stars, more properly called nebulæ, appear as thin cloudy-looking masses of vapour. These, it has been conjectured, may be gaseous matter in the process of formation into suns with their attendant planets. But of this nothing is known with certainty.

Some stars are termed MULTIPLE stars. These consist of two or more close to each other, and performing regular revolutions in orbits round each other, or rather round their common centre of gravity; and for several of them the periods of such revolutions have been calculated. In one or two instances, a complete revolution has been gone through since this great discovery was made by Sir W. Herschel about the close of the last century. A pair of such stars is usually called a *Binary* star, as distinguished from a *double* star, when the two component members may appear close together, though no physical connexion exists; they may be very far apart, and merely appear, as seen from the earth, in the same direction.

Other stars are termed VARIABLE or PERIODICAL. Of these, some present the singular phenomenon of undergoing a regular alternate increase and diminution of lustre; while others disappear altogether for a time. These phenomena are attributed to rotation in these bodies, their surfaces being of different degrees of brightness at different parts—or to the

intervention of some large body revolving between us and them, which cuts off from them a portion of their light.\*

Some stars, called **TEMPORARY** stars, have appeared for but a limited time, and have then disappeared entirely: several stars marked in old catalogues are not now to be seen in the heavens.

Several of the stars appear arranged in clusters, apart from the others, as the **PLEIADES**, in **Taurus**. The **MILKY WAY** owes its light to myriads of stars closely crowded together, of which, when viewed through powerful telescopes, it is found to be composed. Our star, the sun, is supposed to belong to that cluster which forms the Milky Way, being placed near the middle of it. The **MAGELLANIC CLOUDS**, two remarkable objects near the south pole of the heavens, are collections of clusters of stars.

Besides these bodies scattered about every where through the vast realms of space, it has been conjectured that a thin fluid called the **ETHER**, infinitely more rare than our atmosphere, is spread out through the intervening spaces, and that it actually exerts a certain amount of resistance to the motions of the heavenly bodies through it. But this, it must be remembered, is no more than *conjecture*.

Rays of light and heat, and probably other influences, are also traversing space in all directions, darting for years through millions of millions of miles,—linking together the most remote of the works of creation—and revealing to intelligent beings the existence of distant worlds—perhaps of worlds which have long since ceased to exist.

Light, subtle as it is, has been measured in respect to its velocity. By means of two distinct astronomical phenomena, it has been ascertained that the velocity of light is 192,000 miles in a second. Hence the rays of light which reach us

\* The second star  $\beta$ , in the constellation **PERSEUS**, is a variable star, the phenomena of which are visible to the naked eye. It is just on the margin of the Milky Way, on the side furthest from the north pole-star, and about the same distance from that star as **VEGA**. It is in R. A.  $44^\circ$ , D. N.  $40^\circ$ . It may be found by drawing a line from the pole-star in the direction of the letters *Per* in *Diag. 3*, page 390.

"The star, named **ALGOL**," says Herschel, "is usually visible as a star of the second magnitude, and such it continues for the space of 2 days 14 hours, when it suddenly begins to diminish in splendour, and in about  $3\frac{1}{2}$  hours is reduced to the fourth magnitude. It then begins again to increase, and in  $3\frac{1}{2}$  hours more is restored to its usual brightness, going through all its changes in 2 days, 20 hours, 48 minutes."

The star **Omicron** ( $\epsilon$ ) of **CETUS** or the Whale, which is called **MIRA**, goes through its period in 334 days, disappearing altogether for a time. It is a star of the second magnitude when at its brightest. It is in R. A. about  $32^\circ$ , or 2 hours 10 minutes, D. S.  $3^\circ$  to  $4^\circ$ .

from the nearest fixed star, have left that star three years before they reach us, and inform us of its existence then. It has been calculated that light requires about 12 years to reach our system from VEGA.

It is possible that there may be myriads of stars so remote from our system, that their light has never yet reached the earth; while others, whose light still reaches us, may have been long since extinguished. There is no reason to suppose that the boundaries of the sidereal system (if it have a limit) are within reach of even the most powerful telescopes. The most remote stars which the best telescopes bring into view may owe their apparent minuteness not to inferior magnitude, but to enormous distance; and, perhaps an observer at the farthest of them would find the same appearance as we do, star beyond star, in countless myriads, and at distances, of which it baffles the mind to form any adequate conception.

The universe has no bounds that we can even fancy, and wherever we know it, it is full of matter and of motion. There is no point in space that has not some body in it, or some influence passing through it. There are no voids—no objects truly fixed. Life, force, and activity pervade the boundless realms of creation.

### CHAPTER III.

#### FORCES AND MOTIONS OF THE UNIVERSE.

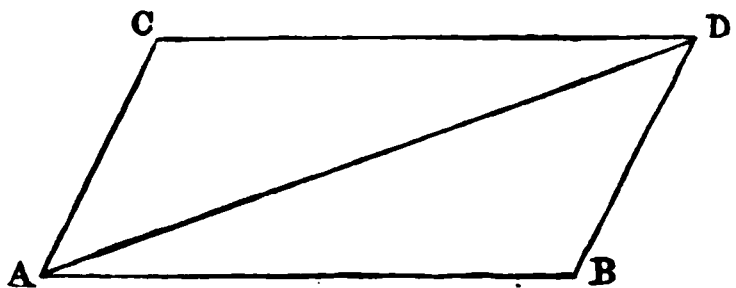
##### 1. DEFINITIONS.

A **FORCE** is whatever produces, or tends to produce, or prevent motion, or to change its direction. A single force acting on a body tends to make it move in a straight line. That line is called the **DIRECTION** or **LINE** of **ACTION** of the force.

When two forces act upon a body, it moves as it would if urged by a single force, represented in magnitude and direction by the diagonal of a parallelogram, the sides of which represent the magnitudes and directions of the two forces.

Thus, if a force of the magnitude and direction of A C act upon a body at the same time as another of the magnitude and in the direction of A B, these two

Diag. 5.



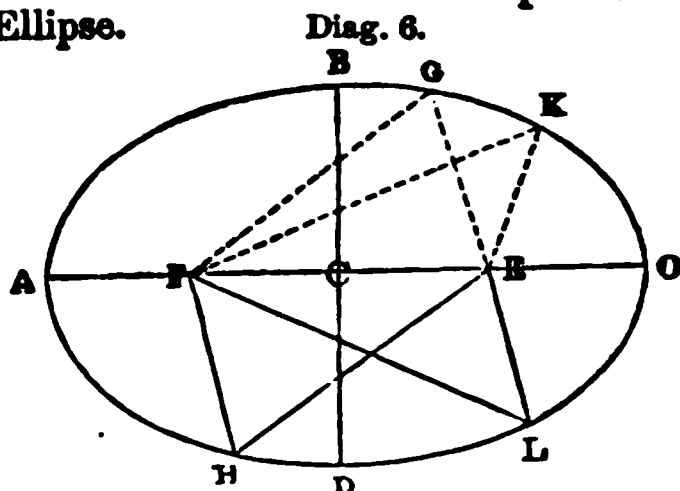
forces would produce exactly the same effect upon it as a single force represented in magnitude and direction by the

line A D. Finding a single force which will produce the same effect as two others, is called the **COMPOSITION of FORCES**: the two forces are called *components*; and the single force is called their *resultant*.

Motion is called **UNIFORM** when the moving body passes over equal spaces in equal times; **ACCELERATED**, when its velocity is increasing; **RETARDED**, when its velocity decreases. The **MEAN MOTION** of a body is the rate at which, moving uniformly, it would still pass over the same space in the same time.

AN **ELLIPSE** is a curved line, such, that the sum of two straight lines, drawn from two points within, to any point on the curve, shall always be the same. These two points are termed the **Foci** of the Ellipse.

Diag. 6 represents an ellipse. F and E are its foci; and if G, K, L, be any points in its circumference, then G F and G E together will be of the same length as K F and K E together, or L F and L E together.



THE **MAJOR AXIS** of an ellipse is the straight line drawn through the foci, and terminated both ways by the circumference, as A O. The middle point of this line, C, is the **CENTRE** of the ellipse. The **minor axis** of the ellipse is the straight line through the centre at right angles to the **MAJOR AXIS**, as B D.

A **TANGENT** (or touching line) to a circle is a straight line which touches the circle, and being produced both ways, does not cut it,—that is, does not go into it. In Diag. 1 (page 9), D K and P H Q are tangents. A tangent of a circle is at right angles to the diameter drawn through the point of contact. There may be tangents to other curve-lines as well as to circles.

The path or course in which a heavenly body moves is called its **ORBIT**. The orbits of the planets and comets are ellipses, the sun being in one of the foci.

THE **EXCENTRICITY** of a planet's orbit is the distance from the centre of the ellipse in which it revolves to either of its foci. In Diag. 6, if the ellipse represent the orbit of a planet, and F the position of the sun, F C is the excentricity.

The point of the planet's orbit farthest from the sun is called its **APHELION**, as O in Diag. 6—that nearest the sun, its **PERIHELION**, as A. These two points are sometimes called **THE APSIDES**.

A **PENDULUM** is any body suspended freely from a fixed point,

about which it swings backwards and forwards. It performs its oscillations (or vibrations) in equal times, however different in length they may be, so long as the pendulum continues of the same length—or the force which causes it to move remains the same. But if the pendulum be made shorter, or the moving force be greater, it will move more quickly—and *vice versa*.

**CENTRE OF GRAVITY.** There is a certain point in every body, which bears such a relation to the whole mass, that the same effects would ensue from its weight, if its whole mass were concentrated in that point—and a similar point may be found for any number of bodies connected together. That point is the **CENTRE OF GRAVITY**. It is the point through which the resultant of the forces of all its separate particles passes.

## 2. GRAVITATION.

*(Attractive, Central, or Centripetal Force.)*

Every particle of matter is imbued with a tendency to move towards every other particle, which is called the **FORCE of UNIVERSAL ATTRACTION**, or **FORCE of GRAVITATION**, or simply **GRAVITATION**.

This force is exemplified in the falling of a body when left unsupported in the air—in the downward force or pressure which every body exerts on those on which it rests, and which we call their weight.

(1.) *Gravitation acts in all directions*, spreading out from a body like rays from a luminous object. This is shown by a plummet suspended near the top of a high rock leaning towards the rock—by bodies tending towards the earth on every side—by the action of the moon in raising the waters of the ocean and forming the tides—by the phenomena observed in the mutual action of the sun, planets, and satellites—and by the consideration, that, as gravitation seems an inherent property of matter, it is not likely to act in one direction more than in any other.

On the earth's surface gravitation acts in one predominating direction—namely, towards the centre of the earth—giving bodies that strong and invariable tendency downwards called **GRAVITY**. This is not owing to any difference in *nature* between the mass of the earth and bodies upon it—but to the circumstance of that mass being so very great compared with that of any body on its surface, that all lateral attractions are overpowered by the overwhelming force of the immense mass under our feet. Also, lateral attractions neutralize each other, while the force of the earth's attraction is not neutralized by any opposite force equally near. The earth's centre is the **CENTRE of GRAVITY** of the earth; so that we may reason with respect to the earth's gravity as if its whole force were collected at its centre.



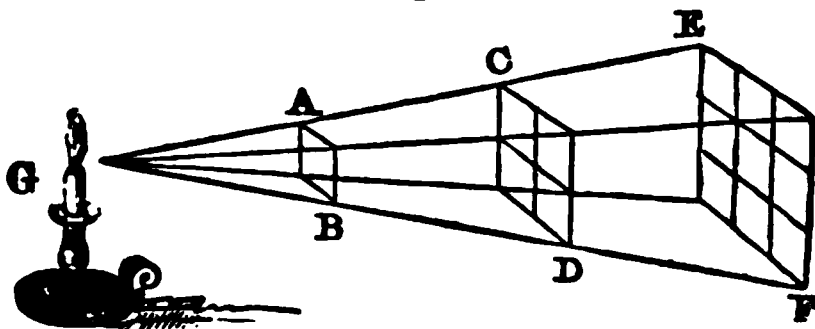
(2.) *The force of gravitation is in direct proportion to the quantity of matter or mass*—that is, any body will exert twice the force that its half would, three times the force that its third would, and so on.

(3.) *The force of gravitation is in inverse proportion to the square of the distance.* This means that the attraction between two bodies placed successively at different distances, is as much *greater* as the square of the distance is *less*—or as much *less* as the square of the distance is *greater*. Thus, the force of attraction between two bodies at any distance, called 1, is as much greater than their attraction at a distance of 2, as the square of 2 (4) is greater than the square of 1 (1) in like manner,

Attraction at distance,		Attraction at distance,					
7	:	3	:	:	9	:	49

The diminution, in the above proportion, of an influence radiating from a central point, may be illustrated by the following diagram. Let G represent any luminous body; A B, C D, and E F, boards at the same successive distances as A B from G; A B being at 1, C D at 2, E F at 3. The same light which spreads over A B, would at C D, *twice* the distance,

Diag. 7.



spread over *four* times the surface; at E F, *thrice* the distance, it would spread over *nine* times the surface. But the same amount of light diffused over 4 times the space will have only 1-4th of the intensity, over nine times the space, 1-9th of the intensity. Hence the strength of light at 1 is to that at 3 as 9 is to 1, or (which is the same) as 1 to  $\frac{1}{9}$ .

This great force is known to extend to the utmost limits of the solar system; and from the phenomena of multiple stars, is believed, combined with the force to be next described, to prevail in the most distant regions of space. As it tends to draw the planets towards the centre round which they revolve—the sun—it is called a **CENTRAL**, or **CENTRIPETAL** (centre-seeking) force. If acting alone, it would precipitate the moon on the earth, and all the planets on the surface of the sun. But its action is restrained by the operation of the centrifugal force.

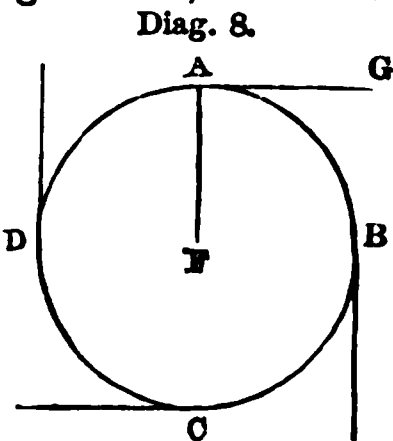
## 3. THE CENTRIFUGAL FORCE.

(Called also, *Projectile* or *Tangential* Force.)

As a single force causes a body to move in a straight line, and the planets move in curved lines, they must be impelled by some other force besides that of gravitation.

This other force is called *centrifugal* (centre-flying), because its tendency is to make the planet fly from the centre round which it revolves; *tangential*, because the line in which the planet would move, were the central force to cease to act, would be a *tangent* to the curve or orbit in which it previously moved. It is called *projectile*, as it tends to throw the body out of its orbit, and resembles the force with which a projectile is impelled from the surface of the earth.

Thus, in Diag. 8, if A be a body moving round F, in the circle A, B, C, D, and if, the body being at A, the projectile force were suddenly to cease, the central force would draw the body in the line A F to the centre. Were the central force to be suspended when the body was at A, the projectile or centrifugal force would carry the body out of the orbit, in the line A G, a tangent to the circle at the point where it was when the central force ceased.



In giving the planets their orbital motions, these two forces act on the principle of the composition of forces. Any curved line may be considered as made up of a number of infinitely small straight lines, which will be the diagonals of a series of parallelograms, whose sides will be lines in the directions of the centripetal and centrifugal forces at each point, and of lengths proportionate to the intensities of these forces. As the directions of the tangent and radius change at every point, the body enters every moment upon a new diagonal, the series of which will form the curve which it describes in its orbit.

## 4. ORBITAL MOTIONS OF THE PLANETS.—KEPLER'S LAWS.

The following general laws are found to prevail throughout the solar system. They were discovered by KEPLER, a celebrated astronomer, who flourished during the early part of the seventeenth century.

1. The planets move round the sun in such a manner, that the line drawn from a planet to the sun (called *radius vector*), passes over areas proportional to the times of the motions;—that is, describes equal areas in equal times.

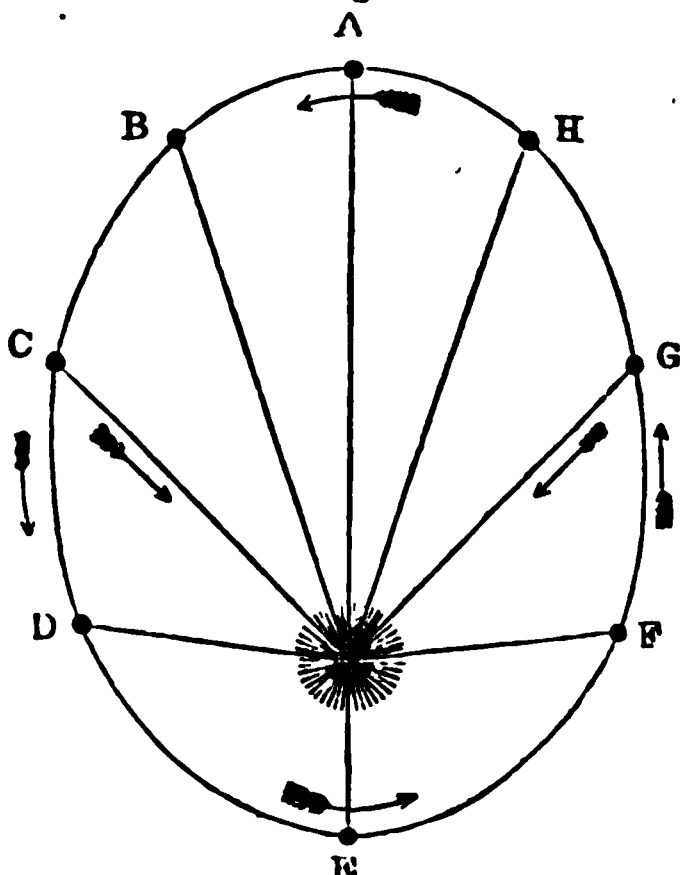
2. The orbits of the planets are **ELLIPSES**, having the sun in one of the foci.

3. The squares of the periodic times of the planets are in the same proportion as the cubes of their mean distances from the sun.

The *radius vector* of a planet is an imaginary straight line from the sun to the planet, supposed to remain fixed at the former, but to follow the planet in its course round that orb, expanding or contracting according to the planet's distance from the sun.

Diag. 9.

In the accompanying diagram, let S be the sun, and A, B, C, D, E, F, G, H, successive positions of a planet revolving in the ellipse A C E G. S A, S B, S C, etc., will be the radius vector in these several positions. Now, if it be supposed that the planet has moved from B to C in the same time as from D to E, then, by Kepler's *first law*, the radius vector in passing from the position S B to S C, has passed over the same space (or area) as in passing from S D to S E—that is, the area S B C is equal to the area S D E; and so on.



From this, and from Kepler's *second law* that the orbits are ellipses, the important truths are derived, that a planet does not move round the sun at a uniform rate—that its motion is at one time accelerated, at another retarded. For, as the planet is at different distances from the sun at different parts of its orbit, and its radius vector describes equal areas in equal times, any area, when the planet is near the sun, is broader than an equal area when the planet is remote; the part of the orbit which bounds the broad area must be longer than that which bounds the narrow one; and as they are both described in the same time, the planet must move more quickly when in that part nearest to the sun.

The velocity of a planet is least when farthest from the sun—becomes accelerated as it becomes nearer—is at its highest when the planet is nearest to the sun, and retarded as its distance from the sun increases.

The *third law* of Kepler describes the relation between the

distances of the planets from the sun and their periodic times or periods; that is, the times occupied by the planets in completing their revolutions round the sun.

This law signifies, that the square of the number of days which any planet takes to complete its revolution round the sun, is to the square of the number of days which any other planet takes to move once round the sun, as the cube of the distance of the first planet from the sun, to the cube of the distance of the second planet from the sun.\*

Or, in the case of Mercury and the Earth,

square of		square of		cube of		cube of
88	:	365	:	35	:	92

88 and 365 are the respective number of days in the periods of Mercury and the Earth—35 and 92, their respective distances from the sun, in millions of miles.

##### 5. ROTATORY MOTIONS AND FORMS OF THE HEAVENLY BODIES.

The sun, planets, and satellites have a motion of rotation by which they turn upon themselves in various periods called the *Day* of the rotating body; this motion goes on simultaneously with their motion in space, just as the wheel of a carriage rotates while moving onwards, or a ball in rolling along the ground.

That the sun and planets have this rotatory motion is known from the observed motion of spots upon their surfaces; and the time of rotation, or *day* of the body, is found by noting the time which a spot takes to move through an arc.

That they have this motion, may also be inferred from their forms, which are such as would be produced by a rotatory motion: they are SPHEROIDS, and the flattening (or polar compression, as it is called) is at the poles or ends of the axis, which is the shortest diameter. The diameter through the planet at its equator is the longest: each body bulges out more or less at its equator.

The parts at the surface of a rotating body move with different degrees of rapidity, and consequently different degrees of force. The polar points do not move out of their places, but simply turn round; each point describes a larger daily circle of rotation as it is nearer the equator. Thus, while a person at the equator of our earth is carried 24,897 miles in his daily rotation, a person at the arctic circle is carried only about 10,100 miles in the same time.

Thus, every part of the surface of a rotating body has a tendency to fly off from the surface (just as a planet has a tendency

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\* The square of a number is the number produced by multiplying it by itself—as, 9 is the square of 3. Its cube is the number produced by multiplying it twice by itself; 27 is the cube of 3.

to fly off from its orbit) in a tangential direction; which tendency increases towards the equator. By the force of gravitation in the planet, the parts at the surface have also a tendency towards the centre, in the direction of the radius. Under the influence of these two forces, the parts tend to a middle course, which brings them from the poles towards the middle regions, and causes an accumulation or bulging out at the equator.

It is supposed, from geological considerations, that the earth assumed this spheroidal form while it was mainly or entirely in a fluid state; the opinion being held that the earth was formerly entirely fluid, and that even now it is so in the interior.

The rotatory motion lessens the force of gravity towards the equatorial regions of a planet: 1. By the greater centrifugal force imparted to these regions, which in some degree neutralizes the central force or weight of a body. 2. By the alteration of form, which brings the polar regions to be nearer to the planet's centre of gravity—its centre.

This difference between the polar and equatorial regions in the force of gravity cannot be shown by an ordinary balance, as the weights used would be as much affected as the body to be weighed. But it is proved by the spring-balance or by the pendulum. The spring is more stretched by any body, and the pendulum moves more quickly, in proportion as it is nearer to the poles, showing an increase of gravitating force in that direction.

The spheroidal form of the earth is also proved by the increase in the length of the degree of latitude in passing from the equator to the poles. If the earth were a true sphere, arcs in the celestial meridian would correspond with arcs of like numbers of degrees in the terrestrial meridian, which is found not to be the case. On going due north or south, the change in the height of the pole does not vary exactly in proportion to the distance north or south moved over. And the deviation from exact correspondence indicates a flattening towards the poles of the earth.

Besides gravitation, the force of HEAT spreads throughout the solar system, and on our earth at least and in some of the comets, gives rise to motions among the particles, which occasion various important and interesting phenomena. Though we know little of its operation in other parts of the solar system or universe, its action, as a probable element in astronomical changes, must not be overlooked in enumerating the forces of the universe.

HEAT, LIGHT, and GRAVITATION link us with far distant worlds; and perhaps there are still other influences, also binding together in one connected chain the remote parts of creation, so fine and inappreciable as to have hitherto escaped our notice.

## CHAPTER IV.

## THE SOLAR SYSTEM.

THE Solar System consists of the SUN and certain other heavenly bodies which are connected with that luminary; namely, PLANETS, SATELLITES, COMETS, ÆROLITES.

The planets, comets, and ærolites revolve round the sun in regular periods of time, receive light and heat from him, and are preserved by his attraction in their proper orbits.

The PLANETS at present known, 110 in number, are VULCAN, MERCURY, VENUS, the EARTH, MARS, 101 ASTEROIDS, JUPITER, SATURN, URANUS, and NEPTUNE. They are here named in the order of their distance from the sun. All these are visible to the naked eye except Vulcan, the Asteroids, Uranus, and Neptune.

All the planets move round the sun in the same direction as the earth—*west by south to east*; and their rotations on their axes are in the same direction—west to east. Their orbits are ellipses, but with the major and minor axes nearly equal, so that they are not far from being circles.

The planes of the orbits of the planets are not much inclined to that of the earth's orbit; but all are inclined to it a little, so that one half of a planet's course lies north of the plane of the ecliptic—the other half, south of it. The points where a planet crosses the plane of the ecliptic are called its NODES.

From the orbits of the planets being little above or below the plane of the ecliptic, they are usually near the ecliptic, few being beyond the zodiac.

From the earth being in motion round the sun, as well as each of the planets, the latter appear at times to be actually *stationary* in the heavens, or even to move back (in a *retrograde* direction). But these apparent irregularities can be explained and calculated; and the real motion is from west to east through the sky, near the ecliptic.

The planets appear to be worlds like our earth. They are opaque and dark in themselves, but shine by reflecting the light received from the sun. This is known by the PHASES which they present (see the Moon). A planet varies in the extent of its illuminated surface which is turned towards us: and of the side next us, that part only appears luminous which is also turned towards the sun, so as to be receiving light from him. These varied appearances are called PHASES.

The SATELLITES are the smaller planets which revolve round some of the preceding planets as their centres, as our moon round the Earth. They are sometimes called *moons*, or *secondary* planets, in contradistinction to the others, which are then considered as *primary*.

The satellites at present known are twenty-two in number. The earth has one; Jupiter, four; Saturn, eight; Uranus, eight; Neptune, one.

The COMETS also revolve round the sun, but in very elongated ellipses, or parabolas; they are often beyond the zodiac, and do not appear to be of the same solid substance as the planets and satellites. The number of comets is very great.

ÆROLITES OR METEORIC STONES are supposed to be fragments revolving round the sun till they come within the sphere of attraction of some planet, when they are drawn out of their course and precipitated on its surface.

THE ZODIACAL LIGHT is a faint luminosity in the sky, visible in the west, immediately after twilight in spring; and in the east, towards the close of autumn, just before sunrise. It is very distinct in tropical regions, and is particularly described by Humboldt, who speaks of "the mild radiance with which the zodiacal light, shooting pyramidally upwards, illumines a part of the uniform length of tropical nights." It is supposed to be a vast nebulous ring revolving between the orbits of Venus and Mars; or, the exterior portion of the solar atmosphere.

### THE SUN; SOL, OR ☉

The sun is the centre of the solar system; and is a globular body 882,000 miles in diameter. It is slightly flattened at its poles, and is believed to turn on its axis in about twenty-five days. Its mean distance from the earth is 92,000,000 miles; and its bulk or magnitude is about 1,384,472 times that of the earth. But its density is believed to be less than that of the earth. The force of gravity at its surface is 27·9 times that of the force of gravity at the earth's surface.

The sun is supposed to be opaque in its body or substance; but to be surrounded by a highly luminous atmosphere, from which emanate the rays which cause light and heat upon the earth. When examined through a telescope, large dark spots, which change both in size and form, are seen upon its surface. These are called MACULÆ; they consist of a dark or black part in the middle, called *nucleus*, with a part around, not so dark, called *penumbra*. Luminous streaks seen near the spots are called FACULÆ. It is conjectured that the appearance of spots is caused by breaks or gaps in the luminous atmosphere, which permit the dark body to be seen. It is supposed also that the sun has an inner atmosphere between its body and the outer luminous atmosphere.

The sun has two *apparent* motions; one daily, through the sky, giving rise to the alternations of night and day, and caused by the earth's rotation on its axis;—another yearly, through the constellations of the zodiac, its centre describing

the great circle of the heavens, called the ecliptic, which is caused by the earth's annual revolution round the sun.

It has been conjectured, that, besides its rotatory motion, the sun has a motion through space, towards the constellation Hercules.

### THE PLANETS.

**VULCAN**, only recently discovered by astronomers in France, and as yet very imperfectly observed, revolves round the sun at a distance of 14,000,000 miles, and in a period of 19 days and 17 hours.

**MERCURY**, ☿.—This small planet is 2950 miles in diameter, 35,000,000 miles from the sun, round which he revolves in about 87 days 23 hours, and turns on his axis in 24 hours 5 minutes. He can be seldom seen, and only for a short time; being so near the sun, he is always in that part of the sky close around the sun, and his inferior light is lost amid the sun's rays. He never departs above  $29^{\circ}$  from the sun; and when he is visible, can be seen only a little before sunrise or after sunset. Mercury exhibits well-marked phases, as the moon does, when viewed through the telescope at various parts of his orbit.

Mercury sometimes passes directly between the earth and the sun, appearing then as a black spot traversing the sun's surface. This is called a *transit of Mercury over the sun's disc*. It seldom takes place, as the orbit of Mercury is inclined about  $7^{\circ}$  to the plane of the ecliptic, so that the planet is seldom in that plane.

**VENUS**, ♀.—This planet's diameter is nearly the same as that of the earth,—7800 miles. She is 66,000,000 miles from the sun, revolves round him in 224 days 16 hours, and turns upon her axis in 23 hours 21 minutes. Venus is the most beautiful of the planets—whence her name—and, being near us, she appears as bright and large as Jupiter. She is never more than  $47^{\circ}$  from the sun, and hence is seen only before sunrise and after sunset, but for a longer time than Mercury. Seen before sunrise, Venus is called *Phosphorus*, *Lucifer*, or the *morning star*; when seen after sunset, she is termed *Hesperus*, *Vesper*, or the *evening star*. Venus exhibits well-marked phases. Her transit over the sun's disc takes place seldom. The next will be in 1874. This phenomenon has been taken advantage of to aid us in determining the sun's distance.

The axis of this planet leans no less than  $75^{\circ}$  towards the plane of her orbit—forming an angle of  $15^{\circ}$  with that plane. Her tropics are only  $15^{\circ}$  from her poles—her polar circles  $15^{\circ}$  from her equator. This gives rise to great peculiarities in the phenomena of day and night and seasons in this planet. (See Seasons.)

Venus and Mercury, which are nearer to the sun than the earth, are sometimes called *inferior* planets—those which are farther from the sun than the earth being called *superior* planets.



**THE EARTH (Tellus) ⊕.**—The mean distance of the earth from the sun is 92,000,000 miles. Her least distance is 91,500,000 miles, on 31st December; her greatest distance, 94,500,000 miles, on 1st July. The mean velocity of the earth in her orbit being 1·00000, her velocity on 31st December is 1·03386; on 1st July, ·96614. She moves round the sun in 365 days, 5 hours, 48 minutes, 49·7 seconds. This is called the tropical or equinoctial year. (See Divisions of Time.)

The earth's orbit is 578,000,000 miles; and her daily motion in her orbit, 1,583,000 miles, or 65,940 miles an hour.

The mean diameter of the earth is 7912 miles,—the polar diameter or axis is 7899 miles,—the equatorial diameter, 7925 miles. The difference between the longest and shortest diameters is 26 miles—about 1-299th of the longer.

The earth turns upon her axis in 23 hours, 56 minutes, 4·09 seconds. This is a true or **SIDEREAL** day. (See Divisions of Time.) The equatorial parts of the earth move by the rotation about 1038 miles an hour.

The force of gravity at the equator is 1-289th less than at the poles by centrifugal force, and 1-590th from the spheroidal form. The sum of these two fractions is 1-194th, which is the amount by which a body at the poles weighs more than at the equator.

The axis of the earth leans  $23^{\circ} 27'$  towards the plane of its orbit, making an angle of  $66^{\circ} 33'$  with that plane. The amount of the inclination may be seen in Diag. 2, page 13. If  $\alpha o$  be the ecliptic, then  $NS$  will represent the axis, making an angle of  $23^{\circ} 27'$  with  $ZN$ , the perpendicular to the plane of the orbit; or, of  $66^{\circ} 33'$  with  $\alpha o$ , the plane of the orbit. Hence, the changes in the length of the day and night, and in the seasons. (See below, Chapter V.)

The earth's axis preserves the same direction during its whole yearly revolution, its position at any one time being parallel to its position at any other time. Yet it always points to the same part of the heavens during the year, the distance between the two opposite points of the orbit (184 millions of miles) being nothing in comparison with the distances of the stars.

**THE MOON (Luna) ♀.**—The diameter of the moon is 2153 miles, a little more than  $\frac{1}{4}$  of the earth's diameter; and her mean distance from the earth is about 237,000 miles. Her distance from the earth does not vary much, her excentricity (see p. 406) being about 1-20th of her mean distance, or 12,000 miles.

The bulk of the moon is about 1-49th of that of the earth; and at the moon the earth will appear about 13 times larger than *she* does to us.

The moon performs her revolution round the earth in 29 days, 12 hours, 44 minutes; and turns upon her axis in the same time. This is the period from one new moon to the next;

and is termed a *synodical* month. A sidereal month is less. (See below, Chapter VI.)

From the period of the moon's rotation on her axis being the same as that of her revolution round the earth (a law found in most other satellites), she always presents the same side to the earth. That side is never totally dark, having one fortnight of sun-light, and being illumined by the earth the other fortnight. The other side has alternately a fortnight of sun-light, and a fortnight of darkness.

The moon's orbit makes an angle of  $5^{\circ} 8'$  with the plane of the ecliptic; and her axis is nearly perpendicular to the plane of the ecliptic, so that she can have little change of seasons, or variation in the length of the day.

**MARS,  $\delta$ .**—The diameter of this planet is 4100 miles, and his mean distance from the sun is 140,000,000 miles. His excentricity is considerable, being nearly 1-10th of the mean distance. He performs his revolution round the sun in 686 days 23 hours, and rotates on his axis in 24 hours 37 minutes.

Mars shines with a reddish light, and, though a small planet, often appears bright, as he is near the earth. He exhibits PHASES as Mercury and Venus do; and the regions about the poles are bright, owing, it has been supposed, to masses of ice and snow there. Mars leans  $28^{\circ} 25'$  towards the plane of his orbit, and has therefore considerable variety in his seasons.

**ASTEROIDS.**—There are 101 small planets; generally known as Asteroids, invisible to the naked eye, namely, CERES, PALLAS, JUNO, VESTA, discovered in the years 1801-7; and ASTREA, HERE, IRIS, FLORA, METIS, HYGEIA, PARTHENOPE, VICTORIA, EGERIA, IRENE, EUNOMIA, PSYCHE, THETIS, MELPOMENE, FORTUNA, MASILIA, LUTETIA, CALLIOPE, THALIA, THEMIS, and 77 others, discovered since 1845.

The diameters of the Asteroids are generally too small to admit of measurement; the largest are from 80 to 250 miles in diameter; their mean distances from the sun, about 202 to 291 millions of miles; and their periods of revolving round him, from about 1193 to 2043 days.

These planets are extremely small, while, generally, the planets rather increase in size as they are more distant from the sun; they are all at nearly the same distance from the sun; their excentricities are considerable; and their orbits are greatly inclined to the plane of the ecliptic, whereas the orbits of the other planets nearly coincide with that plane. The orbit of Pallas makes an angle of  $34^{\circ} +$  with the earth's orbit, and the inclinations of the orbits of most of the other asteroids are considerable. Hence has arisen the bold conjecture that the asteroids originally formed one planet, which has been broken up by some great convulsion; the fragments being thereby thrown into orbits, deviating much from that in which the entire planet may have revolved.

**JUPITER, ♃.**—The equatorial diameter of this, the largest of the planets, is 87,000 miles, and his mean distance from the sun 479,000,000 miles. He revolves round the sun in 4332½ days, or a little less than 12 years; and turns on his axis in about 10 hours (9h. 56m.). The polar diameter of Jupiter is about 1-14th, or 6000 miles less than the equatorial, which is attributed to the great centrifugal force caused by his very rapid rotation on his axis: and, when viewed in the telescope, he appears of a distinctly oval form.

The axis of Jupiter is nearly perpendicular to the plane of his orbit; so that his seasons can exhibit but little variety. Near his equator, and parallel to it, a number of zones, or striae are observed, called BELTS, subject to considerable variations, and supposed to be caused by atmospheric phenomena on the planet.

Jupiter is attended by four SATELLITES or MOONS, which cannot be seen by the naked eye. They were discovered by GALILEO in 1610, shortly after the invention of the telescope. They are from a quarter of a million to upwards of a million of miles from the planet; they revolve round him in periods of from a little less than 2 days to 16 days; and they are of about the magnitude of our moon.

When the body of Jupiter interposes between the sun and any of his satellites, that satellite will disappear from our view, or be eclipsed. These eclipses afford an accurate method of finding the longitude of places on the earth's surface; and have led to the great discovery of the velocity of light. These eclipses take place sooner when Jupiter is near the earth than when he is remote; and the difference has been attributed to the greater time which light takes to reach us from Jupiter's greater distance; the rate of movement of light being thence inferred,—192,000 miles in a second.

**SATURN, ♄.**—The equatorial diameter of Saturn is 79,000 miles; his mean distance from the sun 876,000,000 miles. He moves round the sun in 10,759 days (29½ years), and turns on his axis in 10 hours 16 minutes.

Saturn is accompanied by a very remarkable object, a stupendous RING, or rather three RINGS, the middle one being 19,000 miles from the planet, 17,000 miles broad, and 1790 miles from the outer ring, which is about 10,000 miles broad. They rotate, in their own plane, in about the same time as the planet: and probably, like moons, aid in illuminating its surface.

Saturn has eight satellites, one of which, much larger than the rest, is about the size of Mars; at a distance of from 130,000 to 2,500,000 miles from the body of the planet, and revolving round him in periods of from about a day to 80 days.

**URANUS, ♅.**—The diameter of Uranus is about 34,500 miles, his mean distance from the sun 1,765,000,000 miles. He moves

round the sun in 30,686 days, or about 84 years. He is attended by eight satellites; of which some present the remarkable peculiarities, that the planes of their orbits are nearly perpendicular to the plane of Uranus' orbit, and move round him from *east to west*, while all other motions throughout the solar system take place from west to east. This planet, which is not visible to the naked eye, was discovered by Sir William Herschel in 1781.

NEPTUNE, ♆.—The diameter of Neptune is 41,500 miles, his mean distance from the sun 2,760,000,000 miles; and he moves round the sun in 60,126 days, or about 164 years. One satellite of this planet has been discovered. His existence was predicted simultaneously by Adams and Leverrier in 1846; his orbit, position, and mass having been *inferred* from irregularities in the motions of Uranus. The telescope revealed him in the position thus indicated, and, on examining astronomical records, it was found that he had been previously observed by astronomers, though not known to be a planet.

### COMETS.

Comets are so named from the Greek word *coma*, hair. They exhibit a brilliant luminous point, called the *nucleus*; a more diffuse light surrounding the nucleus, called *coma* or hair; and, often, a long luminous appendage, called the tail, turned from the sun. They are supposed to be masses of vaporous matter, or of solid nuclei, surrounded by much aerial matter. Stars have been seen through several of them; and they have passed near the satellites of Jupiter without deranging the motions of these bodies, while they themselves have been diverted from their course;—indications that they are mostly of aerial matter, and their mass small. They revolve in orbits of which the excentricity is great, being greatly elongated ellipses; so that at one time they approach very near the sun, and at another recede very far from that body. The periods of several have been calculated, as that of HALLEY'S comet, which moves round the sun in 75 years, and returned to our view, as predicted, in 1835;—ENCKE'S and BIELA'S, which perform their courses round the sun in  $3\frac{1}{2}$  and  $6\frac{1}{2}$  years. The latter passes little beyond the orbit of Jupiter.

## CHAPTER V.

### DAY AND NIGHT—SEASONS.

#### 1. *Day and Night.*

THE regular alternation of a period of light, called DAY, and of a period of darkness called NIGHT, is caused by the earth's rotation on its axis, which turns each part alternately *towards* the sun, and *from* the sun.

The daily circle through which each person passes in consequence of the earth's rotation, is his *parallel of latitude*; and the proportion of his night to his day at any time depends upon the manner in which that parallel lies, as regards the **TERMINATOR**.

If, in rotating, the terminator does not cross his parallel at all, he will then have *no day*, or *no night*, according as he is on the dark or illumined side of the terminator; if the terminator cuts his parallel unequally, he will have his day and night unequal at that time; but if it cuts his parallel into two equal parts, he will then have equal day and night.

It must be remembered that the terminator is a great circle extending round the world, always ninety degrees from the place at which the sun is vertical.

As every great circle on a sphere cuts every other great circle into two equal parts, the terminator must always cut the equator into two semicircles, one dark, the other illumined, so that *day and night at the equator are always equal*, or, each is of 12 hours' duration.

At 20th March and 23d September, the sun is vertical at the equator; so that the terminator passes through both poles and cuts *every parallel* into two equal parts. Hence, there is equal day and night all over the world at these periods, called **THE EQUINOXES**. At 20th March, the vernal equinox, the sun enters the sign **ARIES**; the first point of which is where the sun's centre crosses the equinoctial at that date. At 23d September, the autumnal equinox, the sun enters the sign **LIBRA**, the first point of which is where the sun's centre crosses the equinoctial at that date.

At other times, the sun is vertical at some point north or south of the equator; the terminator then *extends beyond* one pole, and *falls short* of the other pole. Some parallels are not cut by it at all;—at these there is no day or no night;—the other parallels are cut unequally, and at these day and night are unequal.

Day and night are more nearly equal in proportion as the time is nearer to an equinox, or the place nearer the equator.

From the arctic to the antarctic circle, that is, in the torrid and temperate zones, there is always some day and some night during each rotation (every 24 hours), however unequal they may be.

Within the polar circles, at one time there is both day and night in each rotation,—at another, no day, the sun remaining below the horizon for several rotations together,—at another time no night, the sun remaining above the horizon for several rotations together.

At the poles, there are six months day, and six months night.

The northern and southern hemispheres are always in exactly opposite states, at corresponding latitudes north and south, in respect to day and night.

The tropics of Cancer and Capricorn are the farthest north and south parallels at which the sun is vertical. As these are  $23\frac{1}{2}^{\circ}$  from the equator, the terminator, when the sun is on (that is vertical at) a tropic, will extend  $23\frac{1}{2}^{\circ}$  beyond one pole, and fall  $23\frac{1}{2}^{\circ}$  short of the other. These will be the greatest distances of the terminator from the poles, and at these distances the polar circles are drawn. When the sun is on a tropic, the terminator just skirts these circles, all within one being dark and having no day, and all within the other being illumined, and having no night.

The sun is on the tropic of Cancer on the 21st of June, when he enters the sign Cancer, the first point of which is at the greatest distance which he reaches north of the equinoctial (D. N.  $23\frac{1}{2}^{\circ}$ ). This period is called the SUMMER SOLSTICE. The sun is on the tropic of Capricorn on the 21st of December, when he enters the sign Capricornus; the first point of which is at the greatest distance he reaches south of the equinoctial (D. S.  $23\frac{1}{2}^{\circ}$ ). This period is called the WINTER SOLSTICE.

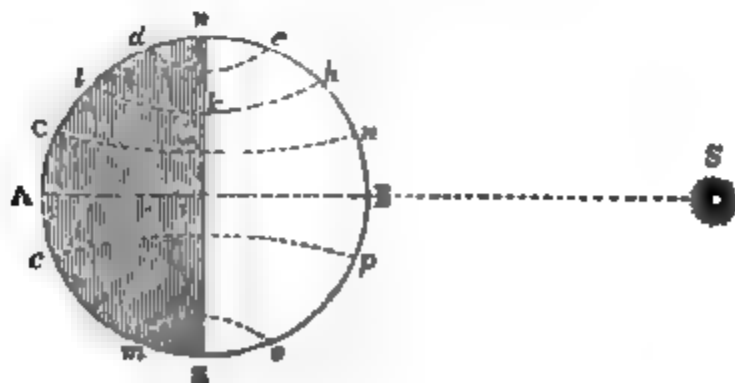
From 20th March to 23d September, there is long day in the northern hemisphere; its length increases from 20th March to 21st June, and then decreases. Within a distance from the north pole,—daily increasing up to 21st June, when it extends to the arctic circle, and then decreasing from that date,—there is constant day; and the north pole has continual day during these six months.

Substituting the word "night" for "day," the description in the preceding paragraph applies to the southern hemisphere; if for "north pole," and "arctic circle," we read, "south pole," and "antarctic circle."

Substituting "23d September" for "20th March," "20th March" for "23d September," and "21st December" for "21st June," and the word "night" for "day," the above description applies to the northern hemisphere; retaining the word "day," it applies to the southern hemisphere.

The following diagrams will illustrate these relations of the various parts of the earth to day and night at different times of the year.

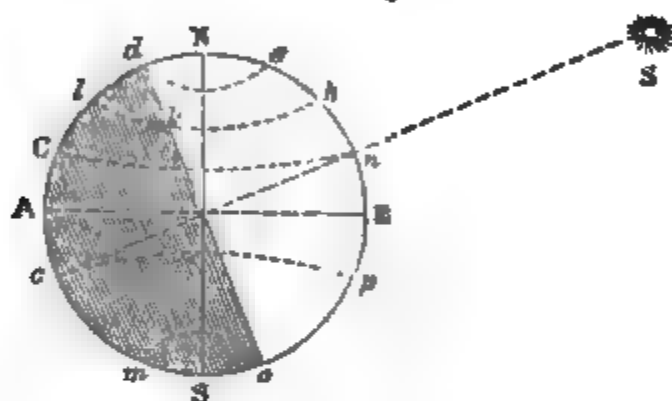
Diag. 10.



Let the preceding diagram represent the position of the earth and sun at 20th March or 23d September. The sun's rays are perpendicular at the equator, or, in other words, he is vertical there. The terminator, N S, passes through both poles, coinciding with a meridian circle, and cutting every parallel into two equal parts. If a person at *l* be supposed to be at his midnight, in 6 hours he will have come to *k* by rotation, where he will meet the terminator and have sunrise; in 6 hours more, he will be at *A*, his midday, with the sun on the meridian; in 6 hours more he will be at the terminator on the other side, having had 12 hours day—and in 6 hours more he will be back at his midnight *l*.

The following diagram represents the state of matters when the sun is vertical at Cancer, 21st June:—

Diag. 11.



The letters indicate the same parts as in the preceding diagram; *k* meaning in both cases the point where the person on the parallel *l* meets the terminator. Here, the terminator, *d k o*, extends  $23\frac{1}{2}^{\circ}$  beyond the north pole, *N*; and falls  $23\frac{1}{2}^{\circ}$  short of the south pole, *S*; skirting the polar circles; but leaving the whole of the antarctic circles in darkness, while all the arctic circle is illumined. A person at *l*, which represents his midnight, now comes to *k*, where he meets the terminator, before he has made a quarter of a rotation; and from that time till he arrives at his midday, *A*, he has more than 6 hours day. His six in the morning is where he crosses the meridian N S. In like manner, in continuing his rotation he does not reach the terminator till *after* another quarter of his rotation, that is, after six evening.

It will be observed that the terminator in this diagram, as well as in the last, cuts the equator into two equal parts; but that from the equator, both north and south, it gradually diverges from the meridian circle, the amount of divergence being greater as the distance from the equator increases; showing that day and night are more unequal the farther the place is from the equator.

At 21st December, the sun is perpendicular at Capricorn, *p* in the diagram; the terminator extends from *e* to *m*, leaving the arctic circle in darkness and the antarctic circle illumined; and the north and south hemispheres are in states exactly opposite to those described in explaining the last diagram.

Thus the terminator oscillates between the positions *d o* and *e m*, always, except at 20th March and 23d September, leaving a certain distance from either pole in constant darkness or constant light for the 24 hours; these parts increasing in extent as the terminator lies more obliquely and the time approaches the solstices, when all within the polar circles is in one or other of these conditions.

## 2. Seasons.

That regular alternation of different kinds of weather, which takes place during the course of the year, is termed *change in the seasons*.

The cause of the changes in the seasons is the varying extent of the sun's influence at different times. The sun's influence is proportionally greater, 1. The higher he is above the horizon of a place; 2. The longer he remains above its horizon. In the northern hemisphere, the sun rises higher and remains daily longer above than below the horizon, from March to September; we have then warm weather or summer. From September to March, the sun rises little above the horizon, and is longer below it than above it daily; we have then winter in the northern hemisphere. The southern hemisphere is in exactly the reverse state; having winter during our summer; summer during our winter.

When the sun is vertical at Cancer, he will rise higher above the horizon of those north of Cancer than at any other time, and will be lower, south from that parallel, the nearer the place is to the antarctic circle, where he does not appear above the horizon at all; as well as lower, north from that parallel, the nearer the place is to the south pole. As the sun recedes from Cancer, he gradually appears higher in the sky to those south of that parallel, and lower to those north of it, till he comes to be vertical at Capricorn; when, substituting north for south, and *vice versa*, matters are in the state just described. Every one has observed that the sun's elevation is greatest at midsummer, and that he gradually sinks till the 21st December, when he ascends but a little way above the horizon, after which his elevation again increases.

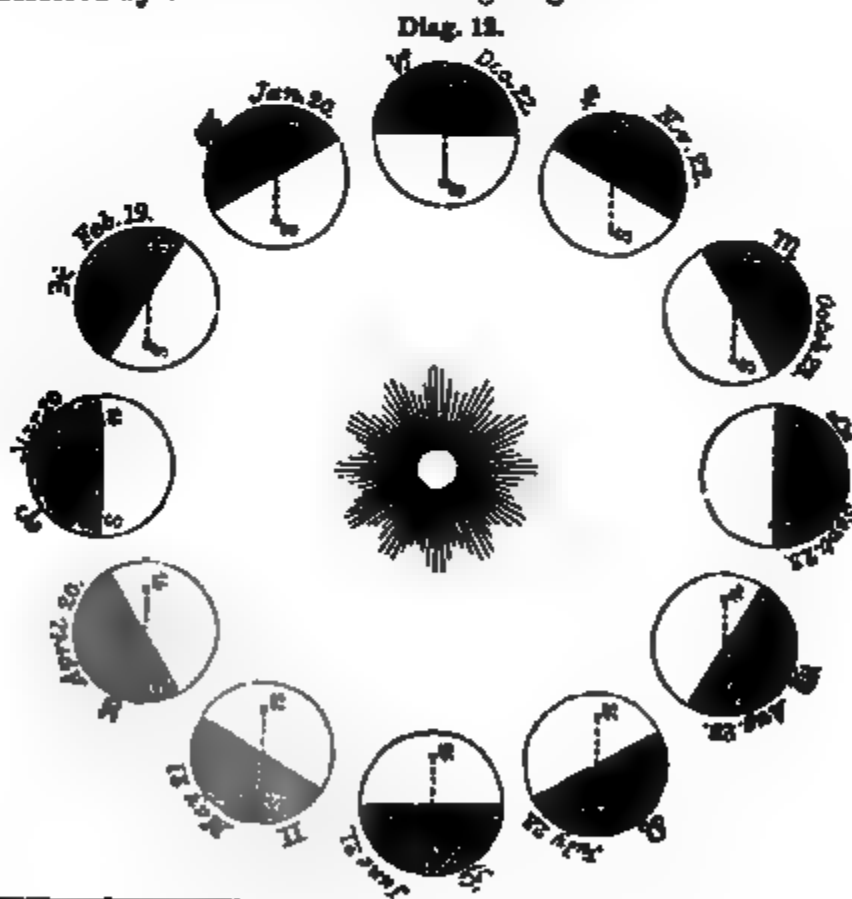
Although the earth is about three millions of miles nearer to the sun in winter than in summer, this makes no difference as to his influence in imparting heat, for as much heat is lost by our more rapid motion in winter, as is gained by our greater proximity to the sun; and *vice versa* in summer.



## CAUSES OF THESE PHENOMENA.

The phenomena of the changes in the length of the day, in the height of the sun, and in the seasons, are produced by the combined operation of three causes:—1. The earth's axis being inclined, and not perpendicular to the plane of its orbit. 2. The earth's annual motion round the sun. 3. The earth's axis remaining always parallel to itself in all parts of its orbit.

From the inclination of the axis to the plane of the orbit, one pole *leans towards* the sun at one period, while the other is *turned from* him. When the earth has moved from that point round one quarter of her orbit, the axis will be placed sideways with respect to the sun, and each pole will be turned equally towards him. As the earth advances and completes another quarter, the poles now reverse their relative positions; the pole formerly turned towards the sun is now turned from it; and the other leans towards the sun. On completing another quarter, the axis will be again placed sideways toward the sun; and as she proceeds onwards, she gradually comes into the position occupied at first. All this will be better understood by the aid of the following diagram:\*



\* And best of all by acting it. This may be done with the floor for the plane of the ecliptic, and a cane in the proper position moved

The twelve outer circles are intended to represent the earth in twelve successive positions in its course round the sun. The line *ns* is a meridian, *n* the north pole, *s* the south. The terminator is seen  $90^\circ$  from the point at which the sun is vertical, leaving one half white in each figure illumined, while the other half, shaded, is in darkness. The line *ns* may also be taken to represent the axis seen to be at any time parallel to its position at any other time. The circle at the top represents the position of the earth at the winter solstice, the north pole within the dark half, and *turned from* the sun; the south pole in the illumined half, and *turned towards* the sun. At the left and right, the relative positions of the earth and sun at the equinoxes are exhibited; the axis lying sideways towards the sun, the terminator passing through both poles, so that each pole is equally under the sun's influence. The circle below shows the earth's position on 21st June, the north pole in the sun's rays, the south pole in the shade.

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## CHAPTER VI.

### DIVISIONS OF TIME.

THE principal divisions of time are, the DAY, the MONTH, and the YEAR.

There are three kinds of day—the SIDEREAL, the SOLAR, and the MEAN-SOLAR or COMMON DAY.

The *sidereal day* is the time which the earth takes to make one complete rotation on its axis—23 hours, 56 minutes, 4.09 seconds. It is called sidereal, from the Latin word *sidus*, a star, because it is estimated by the time which elapses from the moment of any star being on the meridian of a place till its return to that meridian. The reason for this mode of estimating the true period of the earth's rotation will be explained in the next paragraph.

The *solar day* is the time which elapses from the sun's being on the meridian of any place till he returns to that meridian. This is longer than the true time of the earth's rotation, in consequence of the earth's orbital motion round the sun. To understand this, it will be best to suppose (what would be the same in effect) the earth rotating in one spot, and the sun moving in the same direction (west to east) round the earth in a year. One 365th of this apparent course of the sun will be performed daily. If the sun had not this apparent motion, the earth, after one complete rotation, would bring the same me-

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round any body taken as the sun. The cane will represent the half of the axis, and, its constant parallelism being remembered, will at once exhibit the nature of these changes.

ridian back to the sun ; but as the sun has moved through the sky while the earth was rotating, when the meridian, on which the sun was at the commencement of the rotation, has come round to be opposite the spot where the sun was, the sun has moved onwards from that spot, and that meridian does not overtake the sun till the earth has turned a little farther than one rotation : hence, the solar day is a little longer than the true time of the rotation of the earth upon its axis. As the stars are so extremely remote, that the whole diameter of the earth's orbit is a mere point in comparison with their distance, the orbital motion of the earth can make no sensible difference between the true time of rotation and a sidereal day, which is therefore taken as the means of measuring the time occupied in that rotation.

From the unequal rate of motion of the earth in its orbit, and the inclination of the axis to the ecliptic, the solar day varies a little at different times.

The *mean solar* or *common* day, is the average of the solar days throughout the year. Clocks are adjusted to this time, so that they may give equal time throughout the year. The *SUN-DIAL* gives time by the solar day, or by *apparent* time—the clock by *mean* or common time. The vibration of a pendulum is employed as a regulator of time ; and a pendulum of 39·13 + inches, at the latitude of London, vibrates 86,400 times in a mean solar day : these 86,400 seconds are divided into 24 periods of 3600 each, called hours ; and each 3600 into 60 periods of 60 seconds each, called minutes.

The month is of three kinds : 1. The *sidereal* or *periodical* month of 27 days, 7 hours, 43 minutes—the time of one complete revolution of the moon round the earth, judged of by the stars : 2. The *synodical* or *lunar* month of 29 days, 12 hours, 44 minutes, being the time from one new moon to the next, or the time of a revolution of the moon, judged of by her position, as regards the sun : 3. The *calendar* or *common* month, January, February, etc., of 31 or 30 days, excepting February, which has 28 or 29 days. In each year there are 12 calendar or common months, and a little less than  $12\frac{1}{2}$  lunar months.

The *YEAR* is the period between two returns of the sun to the same equinox, and is therefore sometimes called the *EQUINOCTIAL* or *TROPICAL* year. Its duration is 365 days, 5 hours, 48 minutes, and 49·7 seconds.

The *CALENDAR*, or *COMMON YEAR*, contains 365 days. The odd time—5 hours, 48 minutes, etc.—would soon amount to a serious error. It is nearly a quarter of a day, and is allowed to accumulate till every *fourth year*, when it amounts to a day, and the year is increased by a day, to get rid of this time, and is called *LEAP YEAR*. This additional day is added in February, which has then 29 days. But the excess of the equinoctial year over 365 days is not quite a quarter of a day, being about

11 minutes less: hence, one day every four years is too much to add. This error is corrected (within a very trifling amount), by rejecting the additional or intercalary day from every hundredth year, whose number is not divisible by 4. Thus every hundredth year, which leaves no remainder when divided by 400 (as 2000, 2400), and every other year which is divisible by 4 without a remainder, are leap years of 366 days each. All the others are years of 365 days.

There are also astronomical periods differing slightly from the equinoctial year, called *sidereal* and *anomalistic* years.

## CHAPTER VII.

### MOON'S PHASES—ECLIPSES—TIDES.

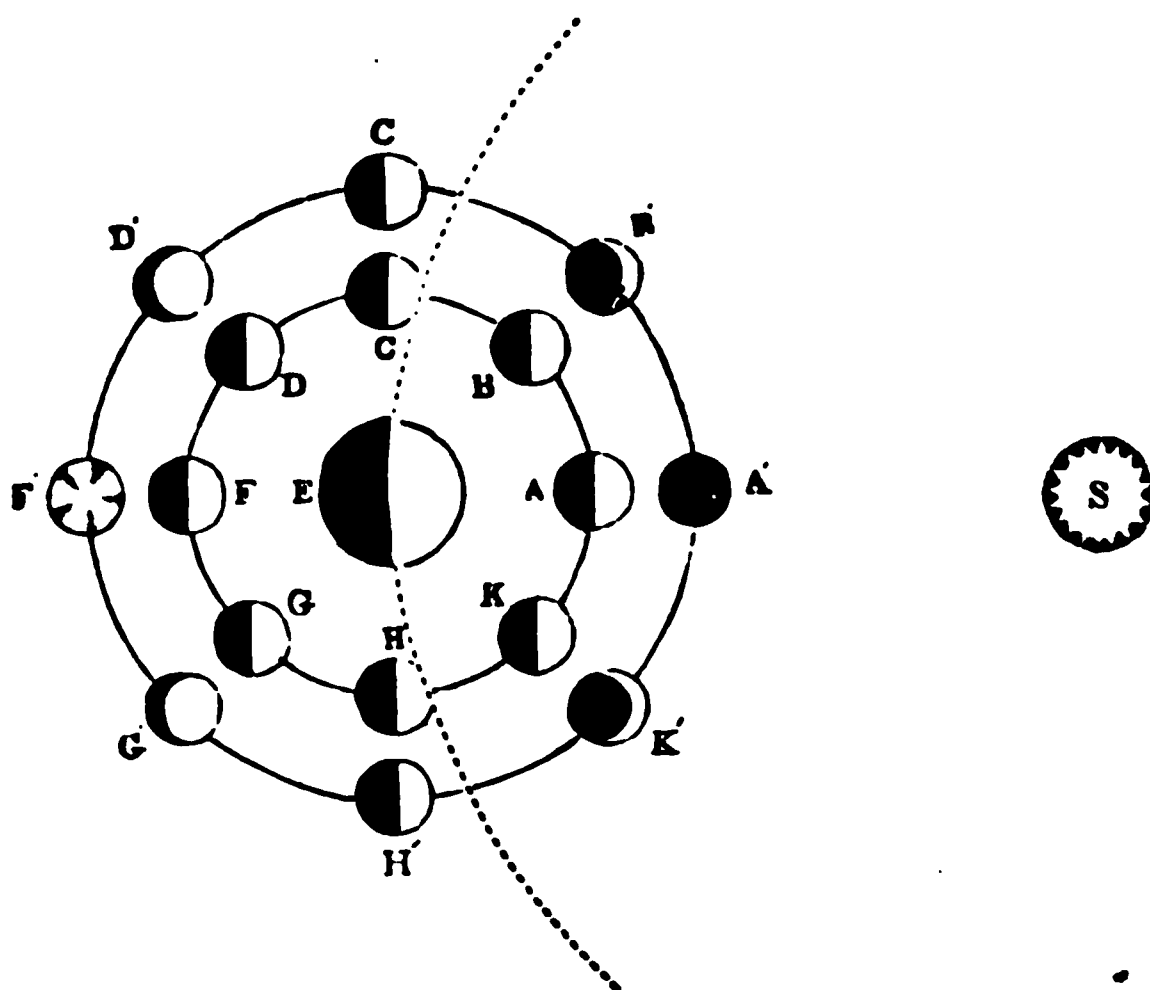
#### *Moon's Phases.*

At one time the moon appears to us as a slender crescent: this gradually increases in magnitude, till a full illumined circle is seen; which then diminishes, until the moon disappears altogether for a short time to reappear and undergo the same changes as before. These changes in the moon's appearance are termed PHASES.

The moon in herself is a dark body, and she shines only by reflecting the sun's light; so that only one-half of the moon shines at a time—that half which is turned towards the sun. And the only visible part of the moon's surface is that part which is turned towards both earth and sun. The amount of this visible part varies according to the position of the moon in her orbit. Hence her *phases*. Mercury and Venus are found by the telescope to exhibit similar phenomena.

The following diagram illustrates the moon's motions and phases. Let S be the sun, E the earth, and A, B, C, D, F, G, H, K, in the inner circle, the moon revolving round the earth in the direction of the order of the letters just given; while the earth moves round the sun in the orbit represented by the dotted line, carrying the moon with her. The figures in the outer circle show the phases or appearances which the moon presents when in the corresponding positions in the inner circle, her orbit. At A, the sun and moon are *in conjunction* (on the same meridian), the dark side of the moon is towards the earth, and the moon is not seen at all, as represented by the black circle at A': we have then *new moon*, or change of the moon. At C, the moon has moved through a quarter of her orbit; half of each side (dark and illumined) is turned towards the earth, and we have half moon; at F, the moon and sun are in *opposition* (opposite meridians), the illumined half is fully turned towards the earth, and there is *full moon*. Continuing her course, the amount of the illumined half turned towards the

Diag. 13.



earth gradually lessens till she arrives at A, when she disappears altogether for a short time.

The earth affords to the moon a very considerable light, and appears about thirteen times larger to the moon than the latter to us. Indeed the light which the earth gives the moon is so great as to render the dark parts of the moon just visible, by reflecting back this light, a little before and after new moon—forming the appearance popularly called “the old moon in the new moon’s arms.”

When viewed through the telescope, Mercury, Venus, and Mars, the planets nearest to us, exhibit phases as the moon does, and for the like reason.

### *Eclipses.*

These are among the most striking of the celestial phenomena. At times the sun or moon is entirely, or in part, obscured by a shadow which gradually comes over its surface and then glides off. This is called an ECLIPSE.

An eclipse of the moon occurs when the moon, earth, and sun come to be in one straight line, with the earth between—an eclipse of the sun when they are in one straight line, with the moon between: the former happens only when the moon is in opposition, or at full moon, as at F in diagram 13; the lat-

ter, when the moon is in conjunction, as at A in that diagram, or at new moon.

If the earth, sun, and moon were always in one plane (as represented in the diagram)—that is, if the orbits of the earth and moon were in the same plane—there would be an eclipse of the earth every fortnight; of the moon, every full moon; of the sun, every new moon. But the moon's orbit is inclined to the earth's orbit at an angle of  $5^{\circ} 8' +$ , so that she is sometimes above, sometimes below, the plane of the earth's orbit. And, therefore, eclipses take place only when there is new or full moon at the times when the moon is crossing the plane of the earth's orbit, which coincidence happens seldom. The points where the moon crosses the earth's orbit are called her *nodes*.

### *The Tides.*

By the action of the sun and the moon, especially the latter, the waters of the large oceans of the earth are drawn in the directions of these bodies, so as to rise and fall according to their position in relation to them. These regular movements are called **THE TIDES**.

The movement of the waters in the tides chiefly follows the course of the moon. The lunar day, or interval from the moon being on the meridian of any place till she is again on that meridian, is 24 hours 50 minutes. Hence, the phenomena of the tides take place in this period. There are two **HIGH-WATERS** or **FLOODS** at the same time, one on the meridian next the moon, the other on the opposite meridian; and at every place there are two high tides in the lunar day, at an interval of about 12 hours 25 minutes. High water is about three hours after the moon has been on the meridian of a place. The tides are highest when the sun and moon are in conjunction or opposition—then called *spring-tides*; lowest when the moon is in her quarters—then called *neap-tides*. The tides are affected by the moon's distance, by the sun's distance and elevation, and by local causes, as explained in the section on Physical Geography.

The tide on the side of the earth next the moon is caused by the direct action of the moon, in drawing towards her the waters there. But the moon also acts on the mass of the earth, as well as on the waters under her; hence, in a manner, she gives the earth a tendency *from* the waters on the farther side of the earth, which produces a high tide on that side also.

# PHYSICAL GEOGRAPHY.

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**GEOGRAPHY**, in its literal and most comprehensive meaning—description of the earth—consists of four parts, **PHYSICAL GEOGRAPHY**, **ORDINARY or POLITICAL GEOGRAPHY**, **MATHEMATICAL GEOGRAPHY**, **GEOLOGY**.

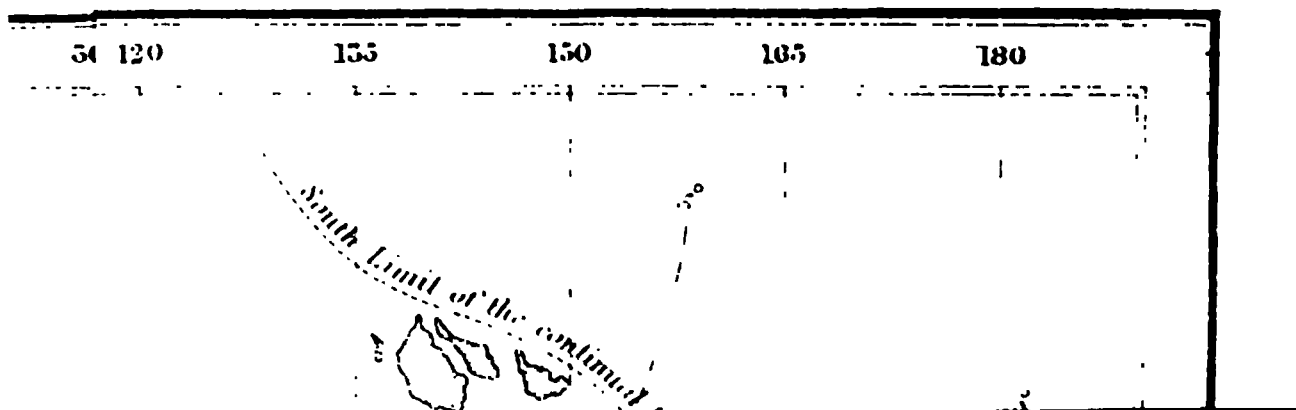
**PHYSICAL GEOGRAPHY** might, not inappropriately, be termed **NATURAL GEOGRAPHY**, in contradistinction to ordinary or political geography. Disregarding the artificial divisions of the land into states or countries, **Physical Geography** marks the broad, striking, natural features of the earth's surface; that is, the arrangement, form, and extent of land and water, of the coasts, mountain-ranges, elevated lands and plains, lakes and rivers; the great oceanic and atmospheric movements; and the distribution over the various regions of the earth's surface, of heat, moisture, magnetism, of the races of mankind, and of the natural families of the lower animals and plants.

**ORDINARY or POLITICAL GEOGRAPHY** describes the divisions of the land made by mankind into countries, provinces, etc.;—their inhabitants, government, towns, natural productions, agriculture, manufactures, and commerce;—every thing being viewed with reference to the artificial divisions and works made by man.

**MATHEMATICAL GEOGRAPHY** treats of the form and magnitude of the earth, its movements, the positions of its parts as regards the heavenly bodies, the phenomena flowing from these positions and movements, and the various imaginary lines and divisions which are made to assist in defining these relations.

**GEOLOGY** describes the structure of the earth, and the changes which take place on its surface and in its interior; that is, the arrangement and composition of the various rocky masses comprising the earth's crust; the remains of animals and plants which they contain; and the changes going on at the surface of the land or in the sea.

The greater portion of this volume is occupied with **Ordinary or Political Geography**; **Mathematical Geography** is treated of in the definitions and along with the **Astronomy**; and we now proceed to a short account of **Physical Geography** and **Geology**.







# PHYSICAL GEOGRAPHY.

## EXTENT OF LAND AND WATER ON THE EARTH'S SURFACE.

The area of the surface of the earth is nearly 197,000,000 square miles.\* Of this, as the following table shows, the land forms a little more than *one-fourth*, the water a little less than *three-fourths* :—

Land.....	51,500,000	square miles.
Water .....	145,500,000	.....

---

Earth's Surface.....197,000,000 .....

Dividing this quantity by 2, we obtain 98,500,000 as the number of square miles in a hemisphere, whether we take northern and southern hemispheres separated by the equator, or an eastern or western hemisphere divided by a meridian circle.

Considered in hemispheres, northern and southern, the proportions of land and water are nearly as follows :—

Northern Hemisphere, Land.....	38,000,000	square miles.
Do. do. Water....	60,500,000	.....
Southern Hemisphere, Land.....	13,500,000	.....
Do. do. Water....	85,000,000	.....

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Earth's Surface.....197,000,000 .....

There is thus about three times as much land in the northern as in the southern hemisphere. Viewed in eastern and western hemispheres (20° W. long. to 160° E. long.), there are about 37 millions of square miles of land in the former, 14½ millions in the latter; being a proportion of 2½ to 1.

Considered with reference to the zones, the earth's surface may be divided as follows:†

North Frigid Zone.....	8,132,797	+	square miles; or parts	4
North Temperate Zone.....	51,041,592	+	.....	26
Torrid Zone .....	78,314,115	+	.....	40
South Temperate Zone.....	51,041,592	+	.....	26
South Frigid Zone.....	8,132,797	+	.....	4
Earth's Surface.....	196,662,893	+	.....	100

The distribution of land and water in the different zones is *nearly* as follows :—The land forms about *one-third* of the north frigid zone; *one-half* of the north temperate zone;

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\* The surface of a sphere is found by multiplying the square of the diameter by 3·1416, or 3½. Thus, the surface of the earth, considered as a sphere, is equal to the number of square miles found by multiplying 7912 by itself, and then by 3·1416, or 3½.

† *Ingram's Mathematics*, p. 212.

*one-half* of the torrid zone; and *one-tenth* of the south temperate zone.

In these estimates, the recently discovered lands in the south frigid zone are omitted: their extent is unknown: that zone is reckoned as being all water.

If we suppose the world to be divided into two hemispheres by the plane of the horizon of London, the dividing line being  $90^\circ$  all round from London, we would find Europe, Africa, North America, all Asia, excepting the Malay Peninsula and a little of the Chino-Indian States, and two-thirds of South America, in the same hemisphere with London; which is therefore nearly in the middle of the land of the world. The other hemisphere would be almost entirely water.\*

#### LEADING NATURAL DIVISIONS OF THE LAND.

The land of the world is formed into two principal masses of vast extent, called **CONTINENTS**, and a number of lesser parts of various magnitudes, called **ISLANDS**. The common distinction between islands and continents—that the former are surrounded by water, while the latter are not so—is correct only as applied to a part of a continent, not to the whole of it. In the literal sense of the definition of an island, the continents also are islands.

In saying that the land is collected chiefly in *two* principal masses, the land around the north pole is disregarded, or supposed to be joined to America, and the land in the south frigid zone is also disregarded.

The largest of these continental masses is that which has been known to man from the earliest times. It is called the **GREAT CONTINENT**, or **GREAT EASTERN CONTINENT**; and is almost entirely (a very small part of the north-east of Asia only excepted) contained within the hemisphere lying east of the meridian  $20^\circ$  west longitude,—between that meridian and the meridian  $160^\circ$  E. long. This is called the eastern hemisphere.

Cape Verde, in Africa, W. long.  $17^\circ 30'$ , is the most westerly point of the great continent; East Cape, in Siberia, W. long.  $170^\circ 6'$ , adjoining Behring's Straits, is its most easterly point. It stretches north to Cape Severo, in Asia, N. lat.  $78^\circ$ , and south to Cape Agulhas, in Africa, S. lat.  $34^\circ 51'$ .

In the south-eastern part of the eastern hemisphere, divided by the tropic of Capricorn, is found the vast island of Australia, sometimes spoken of as a continent, with other large islands to the north and north-west of it.

In the eastern hemisphere the great continent contains a

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\* See the outline sketch of the world divided in this manner in the *Physical Chart of the Globe*.

little less than 33 millions, Australia 3 millions, and the other islands a little more than 1 million, of square miles.

The other continent is the western continent or New World: with the exception of a very small part of the east of Greenland (which may be considered a separate continent), it is contained in the other hemisphere, west of the meridian,  $20^{\circ}$  W. long. Its most westerly point is Cape Prince of Wales, in W. long.  $168^{\circ}$ , adjoining Behring's Straits; its most easterly point, Cape Branco, a little north of Pernambuco, in Brazil, W. long.  $34^{\circ} 48'$ . It stretches from Barrow's Strait, about N. lat.  $74^{\circ}$ , to Cape Froward on the Strait of Magellan, S. lat.  $53^{\circ} 53'$ .

The great eastern continent is naturally divided into two parts, almost entirely separated by the Mediterranean and Red Seas, being joined only by the narrow Isthmus of Suez; Africa in the south-west; Europe and Asia, forming one compact mass in the north and north-east. In like manner, the western continent is divided into two portions,—North America and South America, joined by the narrow isthmus of Panama.

North-east of the Western continent we find Greenland, the northern and eastern extent of which, and its connexion with America, are yet undetermined.

The islands are often found in clusters or *archipelagos*; as the great Polynesian cluster, the Sandwich Islands, the West India Islands, the Isles of Greece, the great Indian Archipelago, the Japan Islands; and several of these, as well as many of the large solitary isles, as Tierra del Fuego, Sicily, Ceylon, Tasmania, are at the extremity of some peninsula. These, with Iceland, Spitzbergen, Nova Zembla, Madagascar, New Zealand, are the leading groups of islands. The Atlantic Ocean has but few islands scattered through it.

The European and Asiatic part of the great continent extends from east to west, its greater axis lying parallel to the equator. Africa and America stretch from north to south.

Most part of Greenland and small parts of North America, Europe, and Asia are in the north frigid zone; the greater parts of North America, Europe, and Asia, and about one-fourth of Africa, are in the north temperate zone. The greater parts of Africa and South America, nearly half of Australia, and small parts of Asia and North America, are in the torrid zone. About one-third of South America, one-half of Australia, and a small part of Africa, are in the south temperate zone.

It has been observed that the land has a great tendency to assume a peninsular form, and that by far the greater number of the peninsulas stretch out into the ocean in a southerly direction. This is seen in the western hemisphere in Greenland, in the peninsulas of Florida, California, South America; in the eastern continent, in Norway and Sweden, Italy, Greece, Arabia, Hindostan, the Malay Peninsula, Corea, Kamtschatka, and Africa. But there are a few exceptions—as Yucatan, Denmark, etc.

Resemblances have been pointed out between Asia and North America, in which Hindostan, Malacca, and the East Indian Archipelago have been compared to Mexico, Florida, and the West Indian Archipelago; and between Asia and Europe, in which Spain, Italy, Greece, and the Archipelago have been compared to Arabia, Hindostan, Malacca, and the Indian Archipelago; the Pyrenees and Alps to the Caucasus and the Himalaya; the Po to the Ganges; Genoa, Milan, and Venice, to Bombay, Delhi, and Calcutta.

Considering how nearly Asia and America are joined at Behring's Straits and by the islands of the Aleutian Archipelago; the proximity of Newfoundland, Greenland, Iceland, and the British Isles; and that Borneo, Australia, and the Polynesian group of islands are like a continuation of Asia; it may be said that the great mass of the land stretches round from east to west about the region of the north temperate zone; sending out three great prolongations to the S. S. E.,—Africa, Oceanica, and South America.

These interesting resemblances, with others which have been noticed, have not yet been traced to any general law.

South America, Africa, Australia, and the north of Asia present coasts very little broken or indented by bays or rivers—particularly Africa. Europe, on the other hand, is indented in many places, and deeply, by bays, gulfs, and estuaries, which penetrate far inland, extend greatly the line of coast, and prove highly favourable for commerce and navigation. The south and east of Asia and the east of North America partake of the same advantages in a somewhat less degree. The length of the European coast from the Straits of Waigatz to the Sea of Azov is about 17,000 miles.

#### LEADING DIVISIONS OF THE WATER.

The great waters of the globe are not, like the masses of land, in distinct portions, each with a well-defined boundary; they are united throughout into one great mass, and the divisions which we form between them are only imaginary. This huge body of water is divided into five principal oceans, the *Atlantic, Pacific, Indian, Arctic, and Antarctic Oceans*.

The Atlantic Ocean extends from the arctic to the antarctic circle, lying to the west of the great continent. Its breadth varies from about 900 to 4000 miles, and its area is 25,000,000 square miles. It is quite open at the south where it joins the Antarctic Ocean, but is partly enclosed at the north by Labrador, Greenland, and Iceland, terminating in Davis' Straits at the north-west, and at the north and north-east in comparatively narrow passages between Greenland and Iceland, and Iceland and Norway. Its leading branches are Baffin's and Hudson's Bays, the Gulf of St Lawrence, Bay of Fundy, Gulf of Mexico, and the Caribbean Sea on the west; on the east,

the North Sea, the Baltic Sea, the English Channel, the Bay of Biscay, the Mediterranean Sea, and the Gulf of Guinea.

The **PACIFIC OCEAN** extends westward from America to Asia, Sumatra, and Australia; it is open to the Antarctic Ocean at the south, but is almost entirely closed at the north by the great continents of Asia and America, which stretch out as if to join, and are only about thirty-six miles apart at the narrow passage of Behring's Straits, where the Pacific and Arctic Oceans meet. This vast expanse of water is about 12,000 miles broad, and has an area of 50,000,000 square miles. Its leading branches are the Sea of Okhotsk, Japan Sea, Yellow Sea, Chinese Sea, on the west, penetrating into Asia; the Gulfs of California and Panama, in America, on the east.

The **INDIAN OCEAN**, between Asia and the Antarctic Ocean, Africa, and Australia, is about 4500 miles broad, and has an area of 20,000,000 square miles. It penetrates the land on the north by the Red Sea, Persian Gulf, Arabian Sea, Bay of Bengal.

The **ARCTIC OCEAN** lies north of the great continents, being almost enclosed by them, penetrating Europe by the White Sea and Sea of Kara, Asia by the Gulf of Obi, and a few small inlets. Large portions of this ocean are constantly blocked up by ice.

The **ANTARCTIC OCEAN** lies within the antarctic circle. It is open on all sides to the Atlantic, Pacific, and Indian Oceans. Portions of land have recently been discovered in it; but, like the Arctic Ocean, great parts of it are blocked up by ice.

#### MOUNTAIN-RANGES AND TABLE-LANDS.

The most prominent features of the land are the high ranges of mountains, towering to a height of many thousand feet above the neighbouring plains, while some reach an elevation of nearly 30,000 feet above the sea,—the level from which the heights are estimated.

Generally speaking, the mountain-ranges lie in the direction of the greatest lengths of the continents. One grand range, or rather series of ranges, with few deviations or interruptions, extends along the great continent, south-west by west from Behring's Straits to the Bay of Biscay. The first are the **ALDAN MOUNTAINS**, commencing at East Cape, from which a branch shoots into Kamtschatka; these are continued in the **STANNOVOI** and **YABLONNOI** ranges, and the **ALTAI** and **THIAN-SHAN** Mountains between Chinese Tartary and Asiatic Russia. Running south-west and south in the **BELOOR-TAGH** range, the grand range meets with the **HIMALAYA** range running east and south-east between Hindostan and Tibet—the two ranges uniting in the great **HINDOO-KOOSH** Mountains. The grand range then stretches west to the **ELBURZ** Mountains, which skirt the south of the Caspian Sea, and may be considered as continued in the **ARMENIAN** Mountains and **TAURUS** range in Turkey in

Asia, and in the great CAUCASUS range running from the Caspian to the Black Sea. The range is continued in Europe by the BALKAN Mountains and EASTERN ALPS in Turkey, and by the CARPATHIAN Mountains in Austria, and HERCYNIAN Mountains in Bohemia and Germany. All these seem to centre in the TYROLESE and SWISS ALPS, which by the CEVENNES, in the south-east of France, pass into the great range of the PYRENEES and the CANTABRIAN Mountains, terminating at Cape Finisterre, nearly the most westerly point of continental Europe. Such is the mighty mountain-range which sweeps from east to west across Asia and Europe.

The leading mountain-ranges not strictly belonging to this great ridge from East Cape to Cape Finisterre, are the IN-SHAN Mountains, north of China; the PELING and YUNGLING Mountains, about the west of China; the HIMALAYA, the WESTERN GHATS, and NEILGHERRIES running along the west coast of Hindostan, the great URAL range, running south between Europe and Asia, the DOFRINE and KOLEN Mountains in the Scandinavian peninsula, and the APENNINE range in Italy. But the In-Shan, Peling, Yungling, and Apennine Mountains, may almost be considered as spurs or branches of the great leading range.

Comparatively little is certainly known of the interior of Africa, but its mountain-ranges would seem to be more isolated. They are, the ATLAS Mountains in the north-west; the KONG Mountains, MOUNTAINS OF THE MOON, and DONGA Mountains, stretching nearly across the continent, in the region of the equator; the LUPATA Mountains, near the Mozambique Channel; and the NIEUWVELD Mountains, near the Cape of Good Hope.

The leading feature of the mountain-system of the American continent is a vast range near or close to the west coast, extending from the Mackenzie River in the north to the Strait of Magellan. This range is some distance inland in North America, where it receives the successive names of ROCKY Mountains, OREGON Mountains, Mountains of MEXICO, but approaches the sea in Central America, and is continued near the coast in South America, in several ridges, under the name of the ANDES, or CORDILLERAS of the ANDES.

Besides these, there are, in North America, a ridge of CALIFORNIAN mountains running along the remarkable peninsula of California, the APPALACHIAN or ALLEGHANY range, running north-east through the United States, and broken ranges from the north of the Alleghany Mountains to the north of the Rocky Mountains, on the line of the great lakes. In South America, a great ridge stretches west from the mouth of the Amazon, and another range extends south-west near the east coast of Brazil, with several irregular ridges in the interior.

**TABLE-LANDS.**

Few mountains rise abruptly from the plains beneath, most of them slope gradually upwards, and they often form level or gently inclined plains of considerable extent, at a high elevation, called **TABLE-LANDS** or **PLATEAUS**. The following are the most extensive table-lands on the globe:—

**CENTRAL ASIA**, between the Altai and Himalaya mountains, from 2000 to 4000 feet above the level of the sea in the north, and 4000 feet towards the middle, at the eastern part of which is the great desert of Gobi. This plain is about 10,000 feet in elevation where it approaches the great Himalaya range.

**AFGHANISTAN** and **PERSIA**, an extensive high land, about 7000 feet in elevation, at the east of the former, sinking to about 4000 feet in Persia.

The **DECCAN**, or interior of Hindostan, about 3000 feet high.

**ARMENIA**, at the north-east of Turkey in Asia, about 6000 feet.

The interior of Asia Minor, and of Arabia, particularly at the west, presents table-lands of considerable elevation.

A large part of the **SPANISH PENINSULA** is elevated to a height of from 2000 to 3000 feet.

**BAVARIA** is mostly a table-land 2000 feet above the level of the sea. And in the south of Norway there is a table-land nearly 4000 feet in elevation.

Little is known of the African table-lands. Large portions of Abyssinia are considerably elevated. The Sahara or Great Desert, and the interior of Africa, from a little north of the equator to Cape Colony, are also elevated lands, attaining a great height in some parts of the south of Africa.

The table-lands in North America are, the country along the **EASTERN BASE** of the **ROCKY MOUNTAINS**, from 2000 to 3000 feet in height; the great **TABLE-LAND OF MEXICO**, extending from the north of California to Central America, 9000 feet high near the city of Mexico; and a less elevated **PLATEAU** in **CENTRAL AMERICA**, from 4000 to 6000 feet.

In South America there are three leading table-lands of vast height and extent, lying between the lofty ridges of the Andes; the **TABLE-LAND of QUITO**, on the equator, about 9000 feet high; the **TABLE-LAND of PASCO** in Peru, 11,000 feet, extending from 10° to 12° south latitude; and the vast plateau of **TITICACA** or **POROSI**, extending from 14° to 21° south, containing the great lake of Titicaca, and elevated nearly 13,000 feet above the sea.

**VOLCANOES.**

Evidences of igneous action, in remote or recent times, are found almost everywhere; as, for example, in the country around Edinburgh, and Auvergne in the centre of France. The chief sites of existing volcanic action are, Kamtschatka, the Kurile Isles, Japan and the islands south of it; Sumatra, Java, and the Sunda islands; Iceland, Hecla, Vesuvius, Etna, the Lipari



Isles, and Stromboli; the Peak of Teneriffe, the West India Islands, Mexico, California, the Andes in South America, and the Sandwich Islands. Volcanoes emit vast volumes of flame and smoke, ashes (which are often carried in showers to great distances), melted rock or lava, and mud.

#### PLAINS OR LOWLANDS, AND DESERTS.

In ASIA the district between the Altai Mountains and the Arctic Ocean is a vast plain; so are the north-east of China west of the Yellow Sea; Hindostan, in the north-east, between the Deccan and the Himalaya Mountains; the country around the Sea of Aral in Turkestan, and the south-east of Turkey in Asia. Several of the lowlands in the south-east of Russia, and neighbouring districts of Independent Tartary, are called *steppes*.

The principal plains in Europe are,—1. That vast district extending from the north of France east through Belgium, Holland, the north of Germany, and Prussia, and over the whole of Russia, which, except in the VALDAI HILLS, in the centre, and the north-west where it joins the Scandinavian peninsula, is almost one level. 2. The plain of Hungary, watered by the Theiss and Danube.

The chief lowland plains in Africa are Lower Egypt, and Soudan, where watered by the Quorra river and Lake Chad.

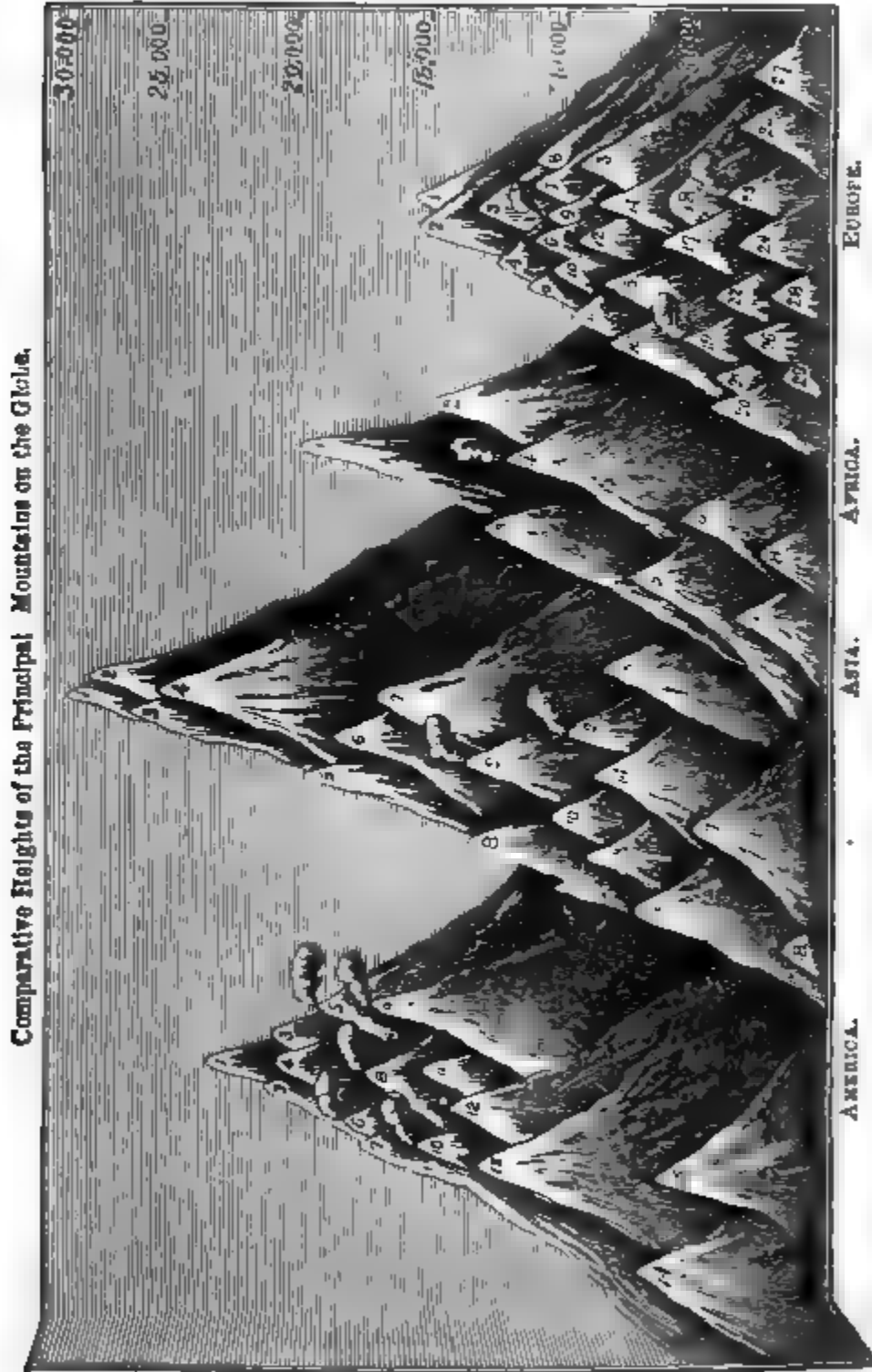
The interior of North America, between the Rocky and the Alleghany Mountains, is one vast plain, watered at the lower part by the Mississippi and its tributaries. The great grassy plains in this region are called PRAIRIES or SAVANNAS.

The interior of South America is also for the most part a plain of little elevation; naturally divided into three great sections, the plains of the Orinoco, of the Amazon, and of the La Plata. The plains of the Orinoco are termed LLANOS, those of the Amazon, SILVAS, and those of La Plata, PAMPAS.

The principal *deserts*, or sandy and barren districts, are the desert of Gobi in Central Asia; the great salt-desert in Persia; the deserts of Syria, and the interior and north-west of Arabia; the Sahara or Great Desert in the North of Africa; the Libyan Desert, west of the Upper Nile; the Deserts of Nubia, between the Upper Nile and the Red Sea; parts of the interior of Australia; extensive tracts of Patagonia in South America; and some districts in the other parts of South America and in North America, particularly at the western part of the great North American plain, in the basin of the river Platte, east of the Rocky Mountains. These deserts, particularly in Arabia, are often vast trackless plains, composed of burning sand, without water, vegetation, or shelter from the fierce rays of a tropical sun. The sand is raised in clouds which blind and often have overwhelmed travellers. Occasionally green spots are met with around a spring, which give relief to the parched and exhausted wanderer. These are called OASES.

The following wood-cut and table represent the heights of

the most elevated mountains in the eastern and western hemispheres :—



## EASTERN HEMISPHERE.—EUROPE.

The Mountains marked * are Volcanoes.				Feet above
Mountain.	Situation.	Country.		the Sea.
1. Mount Blanc.....	Alps.....	Savoy.....		15,732
2. Mount Rosa.....	Alps.....	Switzerland.....		15,152
3. Shreckhorn.....	Alps.....	Switzerland.....		13,492
4. Ortler Spitz.....	Alps.....	Tyrol.....		12,852
5. Mulhacen.....	Sierra Nevada.....	Spain.....		11,678
6. Simplon.....	Alps.....	Switzerland.....		11,542
7. Maladetta.....	Pyrenees.....	Spain.....		11,436
8. Mount Perdu.....	Pyrenees.....	France.....		11,170
9. *Etna.....		Sicily.....		10,874
10. St Gothard.....	Alps.....	Switzerland.....		10,595
11. Raska.....	Carpathians.....	Hungary.....		9,912
12. Olympus.....		Turkey.....		9,754
13. Mount Corno.....	Apennines.....	Italy.....		9,521
14. Lomnitz.....	Carpathians.....	Hungary.....		8,675
15. Sneehatten.....	Dofrines.....	Norway.....		8,120
16. Parnassus.....		Greece.....		8,068
17. Mount Doré.....	Auvergne.....	France.....		6,221
18. Mezin.....	Cevennes.....	France.....		5,820
19. *Hecla.....		Iceland.....		5,210
20. Ben Nevis.....		Scotland.....		4,406
21. Ben Macdhui.....	Grampians.....	Scotland.....		4,296
22. Cairngorm.....	Grampians.....	Scotland.....		4,095
23. *Vesuvius.....		Naples.....		3,932
24. Snowdon.....		Wales.....		3,590
25. Magillicuddy's Reeks.....		Ireland.....		3,414
26. Ben Lomond.....	Grampians.....	Scotland.....		3,190
27. Helvellyn.....		England.....		3,055
28. Skiddaw.....		England.....		3,022
29. Cader Idris.....		Wales.....		2,914

## ASIA.

1. Mount Everest, or Gaurisankar.....	Himalaya.....	N. of Hindostan..	29,002
2. Kunchin-gunga.....	Himalaya.....	N. of Hindostan..	28,177
3. Dhawalagiri.....	Himalaya.....	N. of Hindostan..	28,086
4. Javahir.....	Himalaya.....	N. of Hindostan..	25,749
5. Elburz.....	Caucasus.....	Circassia.....	21,500
6. Highest Peak of Hindoo-Koosh.....		N. of Cabul.....	20,000
7. Ararat.....		Armenia.....	17,112
8. Ophir.....		Sumatra.....	13,842
9. Mowna Koa.....		Sandwich Islands	13,764
10. Bieluka.....	Altai.....	Siberia.....	11,000
11. Highest Peak of Lebanon.....		Palestine.....	10,000
12. *Awatsha.....		Kamtschatka....	9,600
13. Sinai.....		Arabia.....	9,300
14. Olympus.....		Asia Minor.....	9,000
15. Highest Peak of Neilgherries.....		Hindostan.....	8,960
16. Adam's Peak.....		Ceylon.....	6,152
17. Ida.....		Asia Minor.....	5,292
18. Carmel.....	—.....	Palestine.....	1,700

AFRICA.

	Feet above the Sea.
1. Jeb-Ahloor-Singally .....	Soumali or Adel 16,500
2. Mount Hentet.....	Atlas Range.....Morocco.....15,000
3. Highest Peak of the Cameroons.....	W. Africa .....13,000
4. *Peak of Teneriffe .....	Canaries.....12,198
5. Compass.....	Snowy Mountains.S. Africa..... 7,400
6. Pico Ruivo .....	Madeira ..... 5,993
7. Table Mountain.....	Cape Colony..... 3,582
8. Diana's Peak.....	St Helena..... 2,693

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Ascent of Green and Rush in the Nassau balloon, 1838.....	27,000
Ascent of Gay Lussac at Paris in 1804.....	23,040
Greatest height attained on the Himalaya by Dr Gerard.....	20,000
Height of Snow-line on the N. side of the Himalaya .....	16,600
Mansarowara Lake, in Tibet.....	14,500
Height of Snow-line on the Alps.....	8,900
Convent of the Great St Bernard, Alps.....	8,180
Pass of the Little St Bernard, Alps.....	7,192

WESTERN HEMISPHERE.—AMERICA.

Mountain.	Situation.	Country.	
1. Aconcagua .....	Andes .....	Chili .....	23,910
2. Chimborazo .....	Andes .....	Ecuador.....	21,440
3. Sorata .....	Andes .....	Bolivia .....	21,286
4. Illimani.....	Andes .....	Bolivia .....	21,145
5. *Antisana.....	Andes .....	Ecuador.....	19,305
6. *Cotopaxi.....	Andes .....	Ecuador.....	18,858
7. Mount St Elias.....		N. America.....	17,900
8. *Popocatepetl.....		Mexico.....	17,720
9. *Orizaba .....		Mexico.....	17,347
10. *Pichincha.....	Andes .....	Ecuador.....	15,924
11. Mount St Helen's.....	Rocky Mountains	United States....	15,750
12. Mount Fairweather .....		N. America.....	14,750
13. Coffre de Perote.....		Mexico.....	13,413
14. Highest Peak of Blue Mountains.....		Jamaica .....	7,278
15. Mount Washington...Alleghanies.....		United States....	6,652

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Greatest altitude attained by Humboldt and Bonpland on Chimborazo, in 1802.....	19,798
Height attained on Illimani by Pentland.....	19,000
Height of Snow-line on Chimborazo.....	15,800
Heights of Assuay, the ancient Peruvian Road, Ecuador.....	15,540
City of Pasco, Peru.....	13,720
City of Potosi, Bolivia.....	13,350
Lake Titicaca, Bolivia .....	12,795
City of Quito, Ecuador.....	9,542
City of Mexico.....	7,471

## RIVERS AND LAKES.

Next to seas, plains, and mountains, the most striking features of the land are the waters running through it, or **RIVERS**. These rise in the most elevated districts, and flow thence in various directions towards the sea. The high land or ridge between the sources of the rivers, which flow in opposite directions through a country, is called the *water-shed*; the tract of country which sends its waters into any river is called the *basis* of that river.

Rivers play an important part in the grand natural circulation of water, constantly going on through air, earth, and ocean. They are formed from the water which has descended in *rain*, or has been deposited as *dew*, or from the melting of *hail*, *snow*, *hoar-frost*, and *ice*. This water flows along the surface, making *streams* or *rivulets*, which unite and form *rivers*; or it sinks into the ground, when it is absorbed, or penetrates and issues at other parts in springs.

The course of a river necessarily depends on the form of the country through which it flows. Turning in whatever direction its course is favoured by the sinking of the level of the land, it often takes a very circuitous route to the sea. In time it wears away the ground beneath it, and cuts for itself a *channel* or *bed*, the sides of which are called its *banks*.

Rivers generally run at right angles to the mountain-chains, from whose upper ridges they flow; and from the arrangement of the leading mountain-chains, the greater number of large rivers flow from west to east towards the ocean; some to north or south; few towards the west. They are not navigable if they slope more than one foot in 1000; a greater slope gives rise to rapids. Rivers by the wearing away of their beds carry down with them a large quantity of solid matter in suspension. This is in part deposited when their velocity becomes small; when they overflow their banks; and in large beds of a somewhat triangular form at their mouths, called *deltas*. Most great rivers discharge their waters into the sea by several mouths, as the Ganges, the Volga, the Rhine, the Nile, the Orinoco.

Many rivers periodically overflow their banks, as the Ganges, the Indus, the Nile, the Niger, the Zaire or Congo, the Zambezi, the Mississippi. This phenomenon occurs chiefly in the torrid zone, and is caused by the heavy rains which fall there in the wet season; or by the melting of snows on the mountains. The latter cause, operating suddenly, often gives rise to floods in other districts. The rivers in northern Asia are frequently flooded, from their lower portions near the Arctic Ocean being still bound up in ice, while their sources are opened up and replenished by the influence of summer. In several

rivers, whose channels are entered by the tide, a remarkable phenomenon is witnessed at high-tide—a wave, often many feet in height ascending the stream in opposition to the descending current. This is called the *bore*; and is of remarkable height and velocity at the mouths of the Hoogly (a branch of the Ganges) and of the Amazon.

The following table exhibits the situations, terminations, and lengths of the leading rivers of the world:—

## EUROPE.

Name.	Country.	Termination.	Length in miles.
Volga.....	Russia .....	Caspian Sea .....	2200
Danube.....	Germany, etc. ....	Black Sea.....	1700
Dnieper.....	Russia .....	Black Sea.....	1260
Don .....	Russia .....	Sea of Azov.....	1100
Rhine.....	Switzerland, Germa- ny, and Holland ...	North Sea.....	760
Dwina .....	Russia .....	White Sea.....	760
Dniester.....	Russia .....	Black Sea.....	700
Elbe.....	Germany.....	North Sea.....	690
Vistula .....	Poland, etc. ....	Baltic Sea.....	628
Loire.....	France.....	Bay of Biscay....	570
Oder .....	Prussia .....	Baltic Sea .....	550
Tagus.....	Spain and Portugal...	Atlantic Ocean...	510
Rhone.....	Switzerland and France.....	MediterraneanSea	490
Douro.....	Spain, etc.....	Atlantic Ocean...	460
Guadiana .....	Spain.....	Gulf of Cadiz.....	450
Po .....	Italy .....	Adriatic Sea .....	450
Seine.....	France.....	English Channel..	430
Ebro .....	Spain.....	MediterraneanSea	420
Garonne.....	France.....	Bay of Biscay....	350
Guadalquivir .....	Spain.....	Gulf of Cadiz.....	290
Severn.....	England.....	Bristol Channel ..	240
Shannon.....	Ireland .....	Atlantic Ocean...	224
Tiber.....	Italy .....	MediterraneanSea	215
Thames.....	England.....	North Sea .....	215
Humber.....	England.....	North Sea .....	180
Tay.....	Scotland.....	North Sea .....	120
Forth .....	Scotland.....	North Sea .....	115
Clyde .....	Scotland.....	Frith of Clyde....	100

## ASIA.

Yang-tse-kiang .....	China .....	Pacific Ocean .....	3200
Yenisei .....	Siberia.....	Arctic Ocean.....	2900
Hoang-ho.....	China .....	Yellow Sea .....	2600
Obi and Irtish.....	Siberia.....	Arctic Ocean.....	2500
Lena .....	Siberia.....	Arctic Ocean.....	2400
Amoor or Saghalien...	Mongolia, etc.....	Gulf of Tartary...	2300
Euphrates .....	Turkey in Asia .....	Persian Gulf.....	1700
Menam-kong or Me- kong.....	Tibet, etc.....	Chinese Sea .....	1700
Indus or Sindé .....	Hindustan.....	Indian Ocean.....	1700

Name.	Country.	Termination.	Length in miles.
Ganges .....	Hindustan.....	Bay of Bengal....	1500
Brahmapootra .....	Assam, etc.....	Bay of Bengal....	1500
Oxus or Amoo.....	Turkestan .....	Sea of Aral.....	1300
Jaxartes or Sihon.....	Turkestan .....	Sea of Aral.....	1200
Irrawady.....	Birmah.....	Bay of Bengal....	1200
Choo-kiang.....	China .....	Chinese Sea.....	1050
Ural.....	Russia .....	Caspian Sea.....	1020
Tigris.....	Turkey in Asia.....	Euphrates.....	800
Menam .....	Siam .....	Gulf of Siam.....	800
Godavery.....	Hindustan.....	Bay of Bengal....	800

## AFRICA.

Nile .....	Nubia and Egypt....	Mediterranean Sea	4000
Niger or Quorra .....	Nigritia.....	Gulf of Guinea....	2300
Zambezi.....	Mozambique.....	Indian Ocean.....	1400
Zaire or Congo.....	Congo.....	Atlantic Ocean....	1000
Orange or Gariep.....	South Africa.....	Atlantic Ocean....	1000
Senegal.....	Senegambia.....	Atlantic Ocean....	1000
Gambia.....	Senegambia.....	Atlantic Ocean....	1000

## AMERICA.

Amazon or Maranon....	Brazil .....	Atlantic Ocean...	4000
Mississippi.....	United States.....	Gulf of Mexico...	3160
From source of the Missouri.....			4265
La Plata and Parana ...	Brazil and La Plata...	Atlantic Ocean ...	2350
St Lawrence (including the Lakes).....	Canada .....	G. of St Lawrence	2000
Arkansas.....	United States.....	Mississippi....	2000
Madeira .....	Peru and Brazil.....	Amazon.....	1800
Mackenzie .....	British America .....	Arctic Ocean.....	1600
Para and Tocantins.....	Brazil.....	Atlantic Ocean ...	1500
Red River .....	United States.....	Mississippi.....	1500
San Francisco.....	Brazil.....	Atlantic Ocean ...	1500
Orinoco....	Venezuela .....	Atlantic Ocean ...	1480
Rio Grande del Norte...	Mexico .....	Gulf of Mexico...	1400
Paraguay .....	Brazil, etc.....	Parana.....	1200
Ohio.....	United States.....	Mississippi.....	1033
Rio Negro.....	Brazil .....	Amazon .....	1000
Columbia or Oregon....	United States.....	Pacific Ocean .....	1000
Nelson.....	British America .....	Hudson's Bay....	900
Magdalena .....	New Granada.....	Caribbean Sea....	860
Rio Colorado.....	La Plata .....	Atlantic Ocean ...	850
Ottawa.....	Canada.....	St Lawrence .....	800
Rio Colorado.....	Mexico, etc.....	Gulf of California	700
Susquehannah.....	United States.....	Chesapeake Bay..	500
Essequibo.....	Guiana.....	Atlantic Ocean ...	450
Hudson.....	United States.....	Atlantic Ocean ...	325
Delaware .....	United States.....	Delaware Bay ....	300

It has been computed that the Volga drains an area of about 520,000 square miles ;—the Danube, 310,000—Dnieper, 200,000—Don, 205,000—Obi, 1,300,000—Yenesei, 1,110,000—

Lena, 960,000—Yang-tse-kiang 760,000—Hoang-ho, 400,000—Ganges, 420,000—Indus, 400,000—Euphrates and Tigris, 230,000—Nile and Niger, above 500,000 each—Mississippi, 1,368,000—Amazon, 2,400,000—La Plata, 1,240,000—St Lawrence, 600,000—Orinoco, 385,000.

### LAKES.

Inland bodies of water—entirely surrounded by land, are called *lakes*—sometimes, when they obtain a very great magnitude *seas*. Some lakes have no river running either into them or out of them; these are conjectured to be craters of ancient volcanoes. Some send out a stream but receive none,—being fed by springs. Some receive rivers but send none out; as the Caspian Sea, the Sea of Aral, the Dead Sea, Lake Chad in Africa. These are usually more or less salt. By far the greater number both receive rivers and have rivers flowing from them, as the great lakes in North America, and Lake Baikal in Northern Asia.

The following are the principal inland waters or lakes, with their areas in square miles:—

EUROPE.—Onega, 3280; Ladoga, 6330; Wetter, 840; Wener, 2136; Garda, 183; Como, 66; Maggiore, 152; Constance or Bodensee, 228; Zurich, 76; Lucerne, 99; Neuchatel, 115; Geneva, 240; Windermere, 10; Tay, 15; Lomond, 43; Neagh, 156.

ASIA.—Baikal, 20,000; Balkash, salt, 7000; Sea of Aral, salt, 26,000; Caspian Sea, salt, 140,000; Urumiah in Persia, salt, 1800; Dead Sea, salt, 360; Sea of Galilee, 76. The Caspian Sea is 83½ feet, the Sea of Galilee 329 feet, the Dead Sea 1312 feet below the level of the sea. The Dead Sea contains about 1-4th of its weight of saline matters.

AFRICA.—Victoria-Nyanza, 36,000; Tanganyika, 80,000; Nyanyizi-Nyassa; Shirwa, 3600; Mampoor or Ngami; Chad, 15,000; Dembea in Abyssinia; small lakes in Tunis.

NORTH AMERICA.—Nicaragua, 3260; Chapala, 650; Champlain, 500; Ontario, 12,600; Erie, 11,000; Huron, 16,500; Michigan, 13,500; Superior, 43,000; Winnipeg, 9000; Athabasca, 3000; Great Slave Lake, 12,000; Great Bear Lake, 8000.

SOUTH AMERICA.—Maracaybo, 5000; Titicaca, 3800.

### THE OCEAN.

That vast body of water which encircles the globe, when viewed as one grand mass, is called THE OCEAN. We have already stated its area or superficial extent, its leading divisions, and the principal branches by which it penetrates the great continents. We have now to describe briefly its composition, depth, movements, temperature, etc.

It is well known that the water of the ocean is *salt*; but the degree of saltiness is different at different places. Near



the coasts where the rivers and springs are pouring vast masses of fresh water into the sea, and in the polar regions from the great amount of melted snow and ice, its saltness is less marked than far from land. The water of the Atlantic Ocean contains about 1-25th of its weight of saline matters. Of these saline matters, about two thirds are *chloride of sodium* (common salt or muriate of soda), and the other third consists of other salts of soda, lime, and magnesia. Sea-water also contains small quantities of the remarkable elements, *Iodine* and *Bromine*. Its specific gravity is 1.027, that of distilled water being 1.000; and it freezes at about 28° Fahrenheit, 4 degrees below the temperature at which common fresh water freezes. Common salt is readily obtained from sea-water by evaporation—in pans by artificial heat—or in shallow pools by the action of the sun's heat. The latter is called *Bay Salt*.

The ocean varies in depth, as the land does in height. In some places it is very shallow, in others it is very deep. About 20° W. of St Helena, Sir James Ross sounded with a line of 27,600 feet, but found no bottom. In other places, sounding of from 4000 to 7000 feet have not reached the bottom. As might be expected, the water is shallow a considerable way out to sea, where the adjoining land is low: there are often vast depths close to high mountains or precipices.

The temperature of the ocean is much more uniform than that of the air. At the depth of about 300 feet it is supposed that the influence of changes in the seasons ceases. At a certain depth, varying with the latitude, the great body of water encircling the globe has a constant temperature of about 39.5° Fahrenheit. At the equator, this temperature is found at a depth of about 7200 feet; and on going south its position gradually rises till latitude 56° 26' S., where the water at the surface and all depths has that temperature. From this latitude the depth of the temperature 39.5° gradually descends to latitude 70° S., where it is at 4500 feet below the surface. Similar changes are observed north of the equator. At the equator, and for about 10° on each side of it, the temperature of the water is nearly 80° Fahrenheit. It is about 75° at the tropics; about 50° at latitude 60° N., when the sea is free from icebergs; and at about 32° or lower in the Arctic Ocean, even in summer.

**MOVEMENTS OF THE OCEAN.**—The waters of the ocean present three great varieties of movement—**TIDAL WAVES**, **WIND WAVES**, and **CURRENTS**, differing in their sources and general characters, but mixing with and modifying each other.

The action of the moon, strengthened by the sun at new and full moon—lessened by his influence about the first and third quarters—raises the water of the ocean into a great *tidal wave*, which follows the course of the moon over the various meridians. There are two such waves every where

daily, one on the meridian next the moon (or upper meridian), caused by the direct action of the moon on the waters there; the other on the opposite or lower meridian, caused by the action of the moon on the mass of the earth, which has the effect of raising the water on the side *farthest* from the moon. The great Atlantic tidal wave moves north, and strikes upon the shores of Europe and America. In the British Isles, it first reaches the west coasts of England and Ireland, then passes round the north of Scotland, through the North Sea, and thus reaches the mouth of the Thames, which is also reached by a smaller branch of the tidal wave through the English Channel. In the centres of the great oceans, the tides are not high but move with great rapidity; they are raised to a great height, however, in various places from local causes, as near Bristol, where they rise nearly 40 feet; and in the Bay of Fundy, in Nova Scotia, where they rise 60 feet. In the open sea the tidal wave is merely a *wave*, that is, a rising of the water, which sinks again and remains in the same place; but near the coasts there is a real advance or receding of the waters, as the tidal wave rises or sinks.

The action of the moon raises tides only in the great oceans—not in small seas and lakes; and tides are found only in those lesser seas or inlets which are in a position to be easily affected by the great ocean tidal wave. Hence, the Baltic Sea and the Mediterranean have no perceptible tides; while Hudson's Bay, in the direction of the tidal current, has distinct tides.

The action of the wind is another great cause of movements in the waters of the globe; producing waves of various heights from a ripple of a few inches or less to 40 feet,—a height said to be observed near the Cape of Good Hope. Besides the agitation of the surface water by the wind blowing over it, the sea is often affected, to a considerable distance from the seat of the storm, by a lower movement called a *ground swell*. This sometimes indicates a tempest past, sometimes one approaching.

Grand movements of the waters of the ocean, as regular as the tides, but having every where a real onward movement of the mass, are continually going on. These are called *currents*. The greatest and most constant are produced by the action of the sun's heat, in evaporating and raising the temperature of the water of the torrid zone; while that of the polar regions is dense from the low temperature. Great polar currents set in towards the torrid zone; as is manifest in both hemispheres, from the course of the icebergs which have been found near the Azores and the Cape of Good Hope. In the torrid zone these currents, by the more rapid rotatory motion, aided by the action of the trade-winds, are turned into a *general movement* of the equatorial waters from east to west.

More limited or temporary currents are also produced by the tides, long-continued winds, melting ice, etc.

A great oceanic current seems to commence in the Antarctic Ocean, flows north-east, and, bending to the west near the tropic of Capricorn, joins the great western equatorial current in the Pacific Ocean. This current is continued in the Indian Ocean, bends south-west on both sides of Madagascar, doubles the Cape of Good Hope, nearly follows the African coast to the Gulf of Guinea, and thence forms a great Atlantic western current, dividing into a north and south branch, the latter of which again divides into one light current along the South American coast, while another returns towards the Cape of Good Hope. The main branch of the great Atlantic current, which divides near Cape St Roque in Brazil, flows north-west in the direction of the American coast, through the Caribbean Sea, round the Gulf of Mexico. There its temperature is about 88° Fahrenheit. It then passes through the Straits of Florida towards Newfoundland, taking now the name of the **GULF-STREAM**. North of the Bermudas, it begins to bend eastward towards the Azores, sending a branch towards the north-west of Europe, the main branch rejoining the great Atlantic current near the Gulf of Guinea. The great Gulf Stream is of a high temperature, and moves with a speed of about 80 miles a-day at the quickest, off the coast of North America. The high temperature of the Gulf Stream gives rise to the fogs of Newfoundland, from its meeting there with the great polar currents; and contributes to the mildness of the climate of Ireland and the west of Britain. (See the Physical Chart of the Globe, fronting page 428.)

These are the greater currents, but there are many lesser streams in the ocean, such as that into the Red Sea from October to May, and out of it the other half of the year; the reverse in the Persian Gulf; the currents caused by the monsoons in the Indian Ocean and Chinese Sea; and remarkable currents, of a velocity of 15 miles an hour amongst the Orkney and Shetland islands, caused chiefly by the tides, and the peculiar form of the coasts.

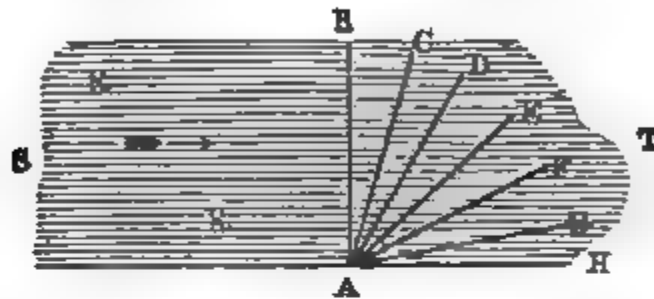
#### CLIMATE AND SEASONS.

The climate of a place means "the prevailing character of the weather at that place."

The main causes of differences of climate are, the amount of solar heat, elevation, position as to large masses of land or water, aspect, direction and position of mountain-ranges, direction of the prevailing winds, composition and state of cultivation of the soil.

1. *Solar Heat*.—The amount of solar heat received at any place is in proportion to the NUMBER OF THE SUN'S RAYS WHICH FALL UPON IT. This again depends upon the direction in which

they fall; and THE TIME OF THE SUN'S CONTINUANCE ABOVE THE HORIZON. Any surface receives more rays, the more perpendicularly they strike upon it, and fewer in proportion as they fall more obliquely. If, in the subjoined diagram, R and R be rays proceeding from S towards T, falling upon the equal surfaces, A B, A C, A D, etc., all differently inclined to the rays,



it is manifest that the greatest number fall upon A B, on which they fall perpendicularly, next on A C, then on A D, and fewest on A G, while at A H they just skirt the surface. At A G it is seen that few rays strike, and that they are distant from each other.

It is manifest that the heat at any place will be greater, the longer the sun remains above the horizon. The long day is a chief cause of the heat of summer in high latitudes.

As the sun oscillates between the tropics, always vertical at some parallel in the torrid zone, his rays fall perpendicularly only within the tropics, and less so as the place is farther north or south of the torrid zone. More rays are received in the torrid zone than in an equal space north or south, and the temperature there is always high; and as the number of rays received diminishes towards either pole, so does the temperature.

This is the *principal* cause of the temperature of a place; and we may therefore say, *generally*, that the climate of a place is warmer the nearer it is to the equator, or, that its temperature diminishes in proportion as its latitude is greater.\*

2. *Elevation* is the next great cause of differences in climate. The temperature of a place depends mainly on that of the air, which absorbs the solar heat from the earth's surface. Now, the higher the place is above the level of the sea, the more rare the air is; and rare air requires more heat to warm it than dense air; the rarer it is, it requires the more. Hence, everywhere, the temperature is lower, the greater the elevation,—about one degree of Fahrenheit, in this country, for every 230 feet. This is strikingly illustrated even in the torrid zone, where the lofty mountain-ranges are covered with perpetual snow at their summits; while every variety of climate is exhib-

\* *Correctly, in proportion to the square of the cosine of the latitude.*

ited on the same mountain as you ascend. Thus, the temperature diminishes in two directions—from the equator towards either pole—and from the low grounds to the elevated regions—burning heat prevailing at the base of a high mountain in warm countries, as Etna or the Peak of Teneriffe, while the summit is crowned with masses of snow and ice.

The following table shows the height of the line of perpetual congelation at different places:—

EUROPE.		Feet above the Sea.
Iceland, . . . . .	65° N. . . . .	8,100
Alps, . . . . .	45°, 46° . . . . .	8,900
Pyrenees, . . . . .	43° . . . . .	9,000
Sicily (Mount Etna), . . . . .	37½° . . . . .	9,500
Spain (Granada), . . . . .	37° . . . . .	11,200
ASIA.		
Altai Mountains, . . . . .	49° to 51° N. . . . .	7,000
Himalaya, North side } . . . . .	30° to 31° { . . . . .	16,600
Himalaya, South side } . . . . .		13,000
AMERICA.		
Rocky Mountains, . . . . .	43° N. . . . .	12,500
Mexico, . . . . .	19° . . . . .	14,800
Andes (near Quito), . . . . .	1½° S. . . . .	15,800
Andes (West Bolivian), . . . . .	18° . . . . .	18,500

The snow-line is not highest at the equator, as might have been supposed; it is higher near the tropics. This is owing to the greater length of the day as the latitude increases, by which the sun's summer action on the snow is considerably increased.

The line of perpetual snow is above the summit of the highest mountains in the British Isles.

The decrease of temperature with the elevation above the level of the sea is of great benefit to the inhabitants of the torrid zone. The cities of Mexico and Quito enjoy a delightful climate, and the table-lands of the Andes, the Deccan, the Punjab, and many other districts in countries near the equator, owe their temperate and salubrious climates to their elevation above the sea-level.

3. *Position in respect to large tracts of land or water* has a most important influence on climate. Water moderates temperature; and hence, places which are near large bodies of water are neither so cold in winter nor so hot in summer as places in the interior of continents far removed from this moderating influence.

Land quickly absorbs heat which falls upon it, but transmits it very slowly through its substance (*i. e.* is a slow conductor of heat): hence, the solar heat which strikes upon the land ac-

cumulates at the surface, which becomes highly heated under a vertical or nearly vertical sun. Again, in winter, the surface of the land throws out its heat readily by radiation; and as, owing to its low conducting power, little fresh heat is supplied from the interior, it becomes speedily reduced to a low temperature.

When heat is imparted to water however, part is evaporated, which, ascending and being diffused abroad, carries from the surface a large portion of the heat which strikes upon it—the great process of evaporation thus tempering the effect of heat greatly wherever there are considerable bodies of water. In winter, the fluidity of water induces another process which prevents the temperature of the surface sinking very low. The surface water, on being cooled, contracts and becomes specifically heavier. It therefore descends, while warmer water from below takes its place. This goes on till the whole mass reaches the temperature of  $39^{\circ}$  Fahrenheit; so that till that time the whole body of water is a magazine of heat which, in proportion to its depth, retards the cooling of the surface water. This great natural operation must, it is evident, temper greatly the cold of winter wherever the land is near considerable bodies of water.

These principles are well illustrated in the climates of the British Isles, the various parts of Europe, the Atlantic Ocean, and North America. In winter, the north of the Atlantic Ocean has a much milder temperature than inland parts of the great continents on the same parallel: and, in like manner, the British Isles which adjoin the Atlantic, and are surrounded by its branches, enjoy a warmer climate in winter than inland places further south, and a milder temperature in summer than inland places further north. Edinburgh and Moscow are nearly on the same parallel,  $55^{\circ}$  north latitude: yet the mean winter temperature of the former is  $38.5^{\circ}$ , of the latter  $15^{\circ}$ . The mean summer temperature of Edinburgh is  $57.1^{\circ}$ , of Moscow  $64^{\circ}$ . Again, London has a mean winter temperature ( $39.5^{\circ}$ ), nearly eight degrees higher than that of Vienna, three degrees further south; and the mean summer temperature of Dublin ( $59.5^{\circ}$ ), is two degrees lower than that of St Petersburg, upwards of six degrees farther north. The mean winter temperature of Edinburgh is half a degree higher than that of Paris.

The same causes which render the torrid zone the hottest part of the earth's surface, and make the temperature decrease towards either pole, lead to those changes in temperature, etc., at the same place at different times of the year, which are called *changes of the seasons*; for the heat at any place at any time, if the other less important causes be disregarded, depends on the height of the sun, and the length of time he continues above the horizon. The highest temperature, however, is not at midsummer, nor the lowest at 21st December, but some weeks

after these periods, when the effects of the sun's position, etc., have been accumulating for some time: when there is still in summer an excess of heat received over that lost; and *vice versa* in winter. In like manner, noon is not the warmest period of the day, nor midnight the coldest. It is hottest about two hours after noon—coldest about two hours before sunrise.

These are the main circumstances which determine the character of a climate. Among other modifying causes is, the **ASPECT**, or slope of the country; that is, the way in which it lies towards the sun: this must have a considerable influence, as it causes his rays to fall more or less slantingly. **THE DIRECTION AND HEIGHT** of the great mountain-ranges have also a material effect on climate, inasmuch as they afford shelter from certain winds. Thus, the extreme cold which prevails in the north of Asia is in part to be attributed to the want of shelter from the arctic winds; and the mild character of the southern side of the Alps, to the shelter these give from northern blasts. **THE DIRECTION OF THE PREVALENT WINDS** has an obvious and often marked influence on climate; and so have the **NATURE OF THE SOIL AND THE STATE OF CULTIVATION OF THE COUNTRY**. Some soils retain moisture, while others give it a ready passage through them. Soils vary in their power of absorbing heat. And the state of a country as to drainage, the clearing of forests, etc., exerts in the course of time a considerable influence on its climate.

**ISOTHERMAL LINES.**—A general idea of the temperature prevalent in any country may be obtained from its mean annual temperature—that is, the average height of the thermometer. In general, this increases as the place is nearer to the equator; but, from the causes just mentioned, the average temperatures of places do not correspond with their latitudes. For the purpose of showing what places have the same mean annual temperature, imaginary lines are drawn through them, which are called *Isothermal* lines, or lines of equal heat. They are very far from coinciding with parallels of latitude: the line of highest temperature (about  $82^{\circ}$  to  $83^{\circ}$ ) is mostly north of the equator; the temperatures are lower in the southern hemisphere than at corresponding latitudes in the northern hemisphere; and the western shores of the great continents exhibit generally higher temperatures than places on the same parallel on their eastern shores. The position of the line of greatest annual heat, to the north of the equator, is attributed to the greater quantity of land in the northern hemisphere, by which heat is more absorbed than by water. To the same cause it is owing that temperatures are generally higher, at least in the torrid and temperate zones, in the northern than in the southern hemisphere. The generally higher temperature on the western than on the eastern shores of the great continents, has been attributed to various causes, such as the greater extension of the land both in the old and in the new world towards the north-

east—the great Gulf Stream, etc. The causes are not supposed to be yet thoroughly understood.

But the isothermal lines indicate the average temperature for the whole year, and only give a general idea of the character of the climate. Two places may be on the same isotherm, yet differ greatly in temperature, both in winter and in summer—one may have an equable moderate temperature, while the other may be brought to the same mean annual temperature by an extreme summer heat, and severe cold in winter. Hence, the mean winter and mean summer temperatures require also to be known, to give a complete idea of the range of temperature. Lines have been drawn through places at equal summer heat, called *Isotherals*, and through places having the same winter temperature, called *Isochimenals*. The following table exhibits the mean summer, winter, and yearly temperatures of several places of interest. The places selected have little or no elevation above the level of the sea, so that this cause does not materially affect their climate.\*

EUROPE.	Latitude.	Mean Winter Temperature.	Mean Summer Temperature.	Mean Annual Temperature.
Edinburgh .....	N. 55 57	38·5	58	47
London.....	... 51 30	39·5	63	51
Dublin .....	... 53 23	40	60	49
Paris.....	... 48 50	38	64·5	51
Gibraltar .....	... 36 7	57	73	64
Constantinople.....	... 41	41	71	56
Vienna .....	... 48 12	32	69	51
Berlin .....	... 52 31	31·5	64	48
Copenhagen.....	... 55 41	31	62	46
St Petersburg.....	... 59 56	18	61	39
ASIA.				
Bagdad.....	... 33 19	49·6	93	73
Bombay.....	... 18 56	77	83	81
Calcutta.....	... 22 33	72	86	82
Canton .....	... 23 7	54	82	69
Pekin.....	... 39 54	28	75	53
AFRICA.				
Cairo.....	... 30 2	58	85	72
Cape of Good Hope	S. 34 11	58	74	66
AMERICA.				
Melville Island ....	N. 74 47	—28	37	1·2
Quebec.....	... 46 49	14	68	41
New York.....	... 40 42	30	71	51
New Orleans.....	... 29 57	55	82	69
Rio Janeiro.....	S. 22 54	68	79	73
—				
Hobart Town .....	... 42 53	42	63	52

\* The Isothere of 60° and Isochimenal of 40° are given on the Physical Chart of the Globe; and the Isotherals of 80°, 70°, 60°, 50°, 40°, 32°, 30°, 20°, 10°, 5°.



It has been observed that places on the eastern sides of the great continents differ much more in their mean summer and winter temperatures, than places on the western sides. This difference is  $28^{\circ}$  for Canton,  $47^{\circ}$  for Pekin,  $54^{\circ}$  for Quebec,  $41^{\circ}$  for New York, all on the eastern sides of the continents—while it is  $20^{\circ}$  for Edinburgh,  $23.5^{\circ}$  for London,  $26^{\circ}$  for Paris,  $16^{\circ}$  for Gibraltar.

It is also found that, generally speaking, this difference increases, the farther the place is from the equator. The temperature varies little throughout the torrid zone—there the mid-day sun is never far from the zenith, and he is always about twelve hours above, and twelve below the horizon. Wet and dry are there the chief distinctions of the seasons. As we pass from that zone towards either pole, the difference in the sun's elevation at different seasons is greater, and so is the difference in the length of the day. In the frigid regions around the pole, extreme cold prevails in winter, while, for a short period in summer, when the sun scarcely sinks below the horizon, the heat is intense. Near the equator, the difference between the mean summer and winter temperatures is only a few degrees;  $2^{\circ}$  at Singapore,  $6^{\circ}$  at Trincomalee. At Calcutta it is  $14^{\circ}$ , at Rio Janeiro  $11^{\circ}$ , Gibraltar  $16^{\circ}$ , Paris  $26^{\circ}$ , Copenhagen  $31^{\circ}$ , St Petersburg  $43^{\circ}$ , Quebec  $54^{\circ}$ , Melville Island  $65^{\circ}$ .

### THE ATMOSPHERE.

The atmosphere (or region of vapours), is that thin light ærial fluid which surrounds the world on all sides. It is supposed to extend to a height of from 40 to 50 miles above the level of the sea; at least at that elevation it is so exceedingly rare that it does not sensibly reflect any portion of the sun's rays to the earth,—a fact which is ascertained by the duration of twilight. The air gradually diminishes in density the higher it is, in consequence of the diminishing pressure of the superincumbent mass.

Its pressure at the level of the sea is 14.7 pounds avoirdupois on every square inch, being equal to a column of mercury 29.8 inches high. Its pressure diminishes in geometrical ratio as the height increases in arithmetical ratio. At 3.4 miles, it is reduced to one-half, or to about 15 in. mercury; at 2 miles, to 2-3ds, or about 20 in. mercury. Near the sea the pressure diminishes about 1 inch of mercury for every 950 feet. A hundred cubic inches of air weigh very nearly 30 grains.

The air is composed of four different bodies, *mixed*, not chemically combined with each other—each existing as an independent atmosphere, penetrating through the other to the greatest height from which we have obtained specimens for analysis; and being found in these specimens in the same proportions as in the air at the level of the sea. 100 parts of

air consist chiefly of 21 parts of OXYGEN GAS, and 79 parts of NITROGEN GAS. The other ingredients are in very small proportions; CARBONIC ACID GAS, from about 1-2000th to 1-1000th part; WATERY VAPOUR, very variable in quantity, seldom exceeding 1-100th part. The air also contains small portions of ammonia, and at times traces of nitric acid have been discovered in it.

Besides these ponderable agents, air is permeated by the subtle influences of heat, light, electricity, magnetism, which become combined with or thrown off from its particles, and exert important effects on the air itself, and on bodies exposed to its action.

The atmosphere performs many extensive, important, and varied functions. It contributes materially to the support of the animal and vegetable creation, supplying both with oxygen for respiration, and the latter with a portion of its carbon. It is the great vehicle of sound, which passes through it at the rate of 1142 feet in a second. By its power of reflecting the sun's rays, it diffuses light and prolongs the day. By this reflective power, the air scatters the sun's light in all directions, so that we have light even in places into which the sun is not shining directly; and, when the sun has sunk below the horizon of a place, and there would otherwise instantly be total darkness, the upper portions of air reflect to it a gradually decreasing light—commonly called *twilight*. The duration of twilight is less as the place is farther removed from the axis of rotation; so that it is short and almost imperceptible at the equator; but continues long after sunset in high latitudes. The air has a powerful influence in moderating temperature over the earth's surface, by the interchange between the polar and equatorial regions, caused by the solar heat and the mobility and pressure of its particles. The air supports the semi-condensed vapour in clouds, and by its motions diffuses them over the lands which they fertilize by descending in rain. And this energetic and universally diffused agent exerts a powerful influence, by its chemical action, in promoting the disintegration of the rocky masses, and the decay of dead organic bodies at the earth's surface.

**MOTIONS OF THE ATMOSPHERE.**—Air in motion is called *Wind*. Whenever, from any cause, a portion of air becomes specifically lighter than the surrounding portions, these, by the laws of fluid equilibrium, rush towards the lighter portion, which is pushed upwards or aside; and these movements go on till equilibrium is restored. This disturbance of atmospheric equilibrium may take place from the action of the sun and moon, which attract the parts immediately under them, causing *atmospheric tides*; but their effect is slight, and only appreciated by very delicate measurements. A change in the amount of watery vapour at a place may upset the balance between the air there and the surrounding air. But the most

frequent, and most powerful, cause of atmospheric movements is, disturbance of equilibrium, caused by change of temperature. Heat expands aërial bodies greatly, so that they become much lighter when their temperature is raised; and the surrounding colder and heavier portions then rush towards and displace them. This is the great cause of *Wind*.

As the air will rush in upon all sides towards the heated portion, winds near the surface of the earth blow *towards the heated region*, and often from all quarters towards a central point. The heated air thus pushed upwards, gets cool, and flows in all directions in upper currents *towards the colder region*, to which it in time descends.

With respect to the velocity of the wind, it has been calculated that a light pleasant breeze moves at the rate of 4 or 5 miles an hour; a brisk wind, from 10 to 20 miles an hour; a high wind, from 30 to 40 miles an hour; a storm, 50 miles an hour; a hurricane, from 80 to 100 miles an hour.

Grand movements of this description are continually going on between the torrid zone and the polar regions. The earth's surface in the torrid zone, being highly warmed by a vertical sun, heats and expands the air there; which is therefore constantly being pushed upwards by a rush of the colder and heavier air from the north and south. In this manner, if the earth did not rotate, there would be a steady south wind in the north part of the torrid zone, and a constant north wind in the southern part of that zone. But as these winds approach the equator, they pass towards a region, where the earth has a much more rapid rotatory motion than they have acquired in the parts from which they have come; and as this more rapid motion is from west to east, it has the same effect as if there was a wind from east to west, or produces an east wind, which, combined with its previous course from north to south, gives rise in the torrid zone to the constant north-east wind north of the equator, and south-east wind, south of the equator. These are the **TRADE-WINDS**. They extend from near the equator to about 28° or 30° N. or S. latitude, varying in their limits according to the movements of the sun north and south of the equator. Near the equator, where the earth's rotatory motion is greatest, and where the opposite north-east and south-east trade-winds meet, the wind is east or calm, and irregular breezes prevail. This takes place from about 3° to 10° N. latitude, where there is a zone between the northern and southern trade-winds, called the zone of calms or variables; this is coloured pink in the Physical Chart, fronting p. 428. The regular trade-winds are north and south of this zone; they are coloured green in the Chart.

Next to the trade-winds, the most regular winds are the **Monsoons**, which prevail in the south of Asia and the Indian Ocean. The district of the monsoons extends from the east

coast of Africa to about  $135^{\circ}$  E. long., and from the southern parts of Asia to about  $10^{\circ}$  S. lat. From April to October, when the sun is vertical north of the equator, and the land there highly heated, a south-west wind blows from about  $3^{\circ}$  S. lat., over the northern part of the Indian Ocean, Hindostan, and the Chino-Indian States, and Indian Archipelago: in the same districts, during the next half-year, a north-west wind prevails. From  $3^{\circ}$  to  $10^{\circ}$  S. lat., there is a south-east wind from April to October, and a north-west wind during the next half-year. The monsoons are attributed to the trade-winds, modified by the sun's position, and the peculiar position of the Indian Ocean in reference to the mass of land in Africa, Asia, and Australia.

In countries in or near the torrid zone, and adjoining the sea, where the land becomes much heated by the high elevation of the sun, there are winds of a pretty uniform character, called LAND and SEA BREEZES. As the day advances, the land becomes more highly heated than the water; the air above the land is therefore more rarefied than the air above the sea, and a current sets in from the sea towards the land, called a *sea-breeze*. But after the sun has gone down, the land cools rapidly, and becoming colder than the adjacent water, the air above the sea is more rarefied than the air above the land, and a breeze sets in from the land towards the sea, called the *land-breeze*.

HURRICANES are another description of winds, common in the Gulf of Mexico and among the West India Islands, in the Atlantic Ocean east of North America and north-west of Africa, in the Indian Ocean, and in the Chinese Seas. They have been ascertained to be masses of air many miles in diameter, rotating round a central point, where it is calm, and which has at the same time a progressive motion in one fixed direction. The interesting and important fact has been almost established, that hurricanes always revolve in the same way in the same hemisphere; from which the bearing of their centres, near which their fury is greatest, can be ascertained; and thus, by knowledge of the laws of storms, and skill in guiding his ship, a navigator, if he cannot get out of the hurricane, may at least avoid running into a more dangerous part of it.

. Certain winds, found only in certain places, are known by peculiar names. The SIMOOM, a hot, dry, burning wind, of a most noxious and irritating character, frequently occurs in the deserts of Arabia and Africa, the arid sands of which impart a high temperature to the air, unmitigated by the tempering influence of water, and often aggravated by the presence of particles of sand. The sand, and the extreme dryness, which causes the skin, mouth, and throat to become parched, have too often made this wind fatal to travellers. It is called the

**HARMATTAN** in the west of Africa, where it blows from the great desert towards the Gulf of Guinea. It affects the vegetable more than the animal creation. A burning south-east wind prevailing in the Mediterranean, Sicily, and the south of Italy, is called the **SIROCCO**. North-east winds which blow in the daytime during July and August, in the east of the Mediterranean, are called **ETESIAN WINDS**. The hurricanes in the Chinese Seas are called **TYPHOONS**.

**ATMOSPHERIC MOISTURE.**—Everywhere the air contains a quantity of moisture, the varying amount and conditions of which produce important effects. This moisture arises from the spontaneous evaporation continually going on from the surface of the various waters of the globe. It is called *vapour*, and is driven off from the water, and sustained in that state, solely by the influence of heat. No space can contain more than a certain amount of vapour at a given temperature. If it contain all that it can hold, it is said to be *saturated*; any reduction of temperature will then cause a portion to be condensed, or deposited in rain, snow, hoar-frost, or dew. If a portion of air be not saturated with moisture, none will be deposited till it is lowered in temperature, below the temperature which the existing vapour would saturate. This point is called the *dew-point*; and it is an important element in considerations relating to the weather, as the distance between the actual temperature and the dew-point determines the probability of rain falling or not. If the two temperatures are near, a small reduction may bring the atmosphere below the dew-point; if they are far removed, a great reduction of temperature is requisite to effect this.

Evaporation takes place at all temperatures—even from ice and snow—if the air above be not saturated. The vapour then rises into the atmosphere, is spread abroad by winds, and diffused over the land. When sufficiently cooled, it forms thin vesicles, or a fine powder, a mass of which forms a fog or cloud. Condensed into the liquid state, it forms *rain-drops* if the condensation take place in the atmosphere; *dew-drops* when the condensation is effected by contact with cold surfaces. When the frozen moisture forms rounded compact masses, *hail* is produced. When vapour condenses at once into the solid state, crystals are formed, called *snow* when the congelation takes place in the air; *hoar-frost* when the vapour is frozen by contact with cold solid bodies, as the ground, leaves, etc. Clouds at a great elevation are believed to consist of minute crystals.

The greatest amount of evaporation takes place in the torrid zone, from the great heat prevalent there; and the atmosphere there contains much moisture, held in the state of invisible vapour by the high temperature. The quantity diminishes towards the poles, owing to the cold; and towards the interior

of the great continents, owing to distance from the sea. In colder regions, the vapour is frequently in the semi-condensed state of cloud or fog. The latter occurs, to borrow the words of Mrs Somerville, "where the soil is moist and warm, and the air damp and cold. Thick and frequent fogs arise in England, where the coasts are washed by a sea of elevated temperature; and the excess of the heat of the gulf-stream above the cold moist air is the cause of the perpetual fogs in Newfoundland. When two masses of air of different temperature meet, the colder, by abstracting the heat which holds the moisture in solution, causes the particles to coalesce and form drops of water, which fall in the shape of rain by their gravitation." Since heat is the cause of evaporation, rain is very unequally distributed, and with the heat decreases from the equator to the poles. From the island of Otaheite in the Pacific, to Uleaborg in Finland, the annual quantity of rain decreases from 150 inches to 13. It is, however, more abundant in the New World than the Old; 115 inches fall annually in tropical America, while in the Old World the annual fall is only 76 inches: so also in the temperate zone of the United States the annual quantity is 37 inches, while in the Old Continent it is but  $81\frac{1}{2}$  inches.

"Between the tropics," says Mrs Somerville, "the rains follow the sun: when he is north of the equator, the rains prevail in the northern tropic; and when he is south of that line, in the southern; hence one-half of the year is extremely wet and the other half extremely dry; the change taking place near the equinoxes. Nevertheless in countries situated between the 5th and 10th parallels of latitude, north and south, there are two rainy seasons and two dry; one occurs when the sun passes the zenith in his progress to the nearest tropic, and the other at his return, but in the latter the rains are less violent and of shorter duration. Although the quantity of water, which falls between the tropics in a month is greater than that of a whole year in Europe, yet the number of rainy days increases with the latitude, so that there are fewest where the quantity is greatest. Neither does it fall continually during the rainy season between the tropics, for the sky is generally clear at sunrise,—it becomes cloudy at ten in the morning, at noon the rain begins to fall, and, after pouring for four or five hours, the clouds vanish at sunset, and not a drop falls in the night, so that a day of uninterrupted rain is very rare. At sea, within the region of the trade-winds, it seldom rains; but in the narrow zone between them known as the variables, in both the great oceans, it rains almost continually, attended by violent thunder-storms. Throughout the whole region where the monsoons prevail, it is not the sun directly, but the winds, that regulate the periodical rains. In these countries the western coasts are watered during the south-west monsoon, which

prevails from April to October; and the eastern coasts are watered during the north-east monsoon, which blows from October to April."

In the arid deserts of Africa and Arabia, in the desert of Gobi, in parts of Mexico and California, and Peru, it never rains. At the equator the annual fall is 95 inches, in about 80 days; on the west coast of England,  $37\frac{1}{2}$  inches in 152 days; on the east coast of England,  $25\frac{1}{2}$  inches in 152 days; at St Petersburg, 17 inches in upwards of 100 days.

The following table exhibits the annual fall of rain at several latitudes:—

Mean between the Tropics.....	Inches	95
Mean North Temperate Zone.....	...	37
Mean South Temperate Zone.....	...	26
Demerara.....Latitude $6^{\circ} 45'$ N.....	...	156
Bombay.....	$18^{\circ} 26'$ .....	80
Calcutta.....	$22^{\circ} 33'$ .....	58
New York.....	$40^{\circ} 42'$ .....	36
British Islands, on the plains.....	...	$24\frac{1}{2}$
London.....Latitude $51^{\circ} 30'$ .....	...	23
St Petersburg.....	$59^{\circ} 56'$ .....	17

#### GEOGRAPHICAL DISTRIBUTION OF PLANTS.

The vegetable kingdom consists of three great natural divisions, Cryptogamic, Endogenous, and Exogenous plants. These are arranged in subdivisions, ending in about from one to two hundred NATURAL FAMILIES, consisting of certain genera of plants resembling each other in a great number of the leading points in structure, character, and properties.

The CRYPTOGAMIC or FLOWERLESS plants are those whose mode of producing their seeds is indistinct; as lichens, mosses, the fungous tribe, seaweeds (algæ), ferns.

The ENDOGENOUS or MONOCOTYLEDONOUS tribe are those which grow by the addition of new matter within, as the first name indicates, or have but one seedlobe, as implied in the second. The veins of their leaves are in parallel rows; and the number 3 prevails in the divisions of the flower. Grasses, the grain-yielding plants, as wheat, barley, rye, rice, Indian corn, sugarcane, lilies, palms, belong to this division.

EXOGENOUS or DICOTYLEDONOUS plants, have their growth by the addition of new matter near their outer surface, and have two seedlobes. The veins of the leaves are in an irregular network; and the number 5 usually prevails in the division of the parts of the flower. This is the most numerous class of flowering plants, embracing the trees, shrubs, and greater number of the herbs of temperate regions. Oak, fir, beech, poplar, chestnut, laburnum, rhododendron, heath, the great families of rosaceæ, umbelliferæ, papilionaceæ, and compositæ (thistle and daisy tribe) are examples.

Some plants are *evergreens*, that is, the new leaves appear before the old ones have withered and fallen off; others are *deciduous*, that is, the leaves fall off, and the plant is leafless for a season; others are *annual*, or *biennial*, that is, the whole plant entirely perishes in one or in two seasons.

In tropical regions, the dicotyledonous tribe is to the monocotyledonous tribe as about 4 to 1; in the temperate zones, as about 6 to 1; in the frozen regions, as about 2 to 1. There, the flowering plants are found in but small proportion,—the cryptogamic families predominating. In the temperate regions, about 1-6th of the flowering plants are *annual*; in the torrid zone, less than 1-20th; in the frigid zone, 1-30th.

According to Humboldt, the earth, viewed as to vegetation, may be divided into 8 zones. These are named according to the plants which *prevail* in each zone; spreading, however, into those on each side of it.

1. The equatorial zone, or region of palms and bananas, in which also the principal spice plants are found, extending to about  $15^{\circ}$  on each side of the equator.

2. The tropical zone, from  $15^{\circ}$  to the tropics, the region of tree-ferns and figs.

3. The subtropical zone, from the tropics to about  $34^{\circ}$ , the region of myrtles and laurels.

4. The warm temperate zone, from  $34^{\circ}$  to  $45^{\circ}$ , the region of evergreen trees.

5. The cold temperate zone, from  $45^{\circ}$  to  $58^{\circ}$ , where European or deciduous trees prevail.

6. The sub-arctic zone, from  $58^{\circ}$  to the arctic circle, the region of pines.

7. The arctic zone, from the polar circle to  $72^{\circ}$ , the arctic zone of rhododendrons.

8. The polar zone, beyond  $72^{\circ}$ , the region of alpine plants.

Changes in vegetation, similar to what are found in passing from the equator towards the poles, occur in ascending from the base to the summits of mountains, as is strikingly exhibited on Etna, the Peak of Teneriffe, the Alps, Pyrenees, Andes, and Himalaya Mountains. Each plant has its limit in elevation, as in latitude. On Teneriffe, Humboldt found the vegetation disposed in about five zones; the *region of vines*, from the shores to an elevation of about 640 yards; the *region of laurels*; the *region of pines*, from 1920 to 2770 yards; a zone characterized by a species of *broom*; the *region of the grasses*. Above these are a few cryptogamic plants. The date is found in the lower region.

Climate is the chief cause of the varieties of vegetation at different places. Another great cause is the composition of the soil, its dryness, moisture, etc.\*

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\* The limits of the cultivation of the vine, and the northern limits of wood and wheat are shown in the Physical Chart, fronting p. 428.



## GEOGRAPHICAL DISTRIBUTION OF ANIMALS.

Animals are arranged in two great divisions, VERTEBRATED ANIMALS, having a spine or backbone and internal skeleton; and INVERTEBRATED ANIMALS without these parts. Man and the higher orders of animals belong to the former division. Insects, shell-fish, &c., belong to the latter. The Vertebrata are in four classes.—Mammalia, which suckle their young; Aves birds; Reptiles reptiles; and Pisces (fishes). The Invertebrata are in three principal sections.—Articulata (or jointed animals), such as worms, insects, shrimps, lobsters; Mollusca soft-bodied animals, as snails, mussels, and other shell-fish; and Zoophyta or Radiata, the lowest tribe, such as coral, sponge, star-fish.

Animal life, like vegetation, is most rich and luxuriant in tropical regions. The zoophytes, as coral and madrepore, are abundant, the shell-fish large and brilliantly coloured, particularly in the Indian seas. The insect tribe and birds, in number and beauty, and richness of colouring, are nowhere so striking—the reptile tribe flourish—and the large mammalia,—whether they live on vegetables, as the elephant and rhinoceros,—or are carnivorous, as the tiger and lion,—are developed in the highest degree. From this zone, so full of both vegetable and animal luxuriance, the animal as well as the vegetable world gradually becomes stunted or dwindles, till near 80° latitude, where the extreme cold will scarcely permit the existence of animal life. The elephant is found only in India, the Chino-Indian states, and Africa; the lion in Asia and Africa; the kangaroo in New Holland; the reindeer near the arctic circle; the monkey tribe little beyond the torrid zone. Those useful animals, the horse, ox, dog, sheep, goat, and hog, flourish through a vast range, extending from near the arctic circle to a parallel a little south of the Cape of Good Hope, in both continents.

In the waters also there are vast numbers and varieties of animals and vegetables; different kinds being found in different places according to the composition, depth, temperature, &c., of the water in which they live.

## GEOGRAPHICAL DISTRIBUTION OF MAN.

Mankind have been divided into five great *races* or *varieties*, not distinct species, all agreeing in those grand features which naturalists have decided on as determining species. They are the INDO-EUROPEAN or CAUCASIAN, the MONGOLIAN, the MALAYAN, the NEGRO or ETHIOPIAN, and the AMERICAN RACES. (See the sketch on the Physical Chart, fronting p. 428.)

In the Indo-European or Caucasian race, the face is oval, the features regular, the hair long, fine, and in waving curls,

the head finely shaped, rounded, having the upper and anterior portion large. This race inhabits all Europe except Lapland, Finland, and part of Hungary; Africa, from the Mediterranean to about 20° N. latitude; and Asia, west of a line from the river Obi to the Ganges (or from about the south of the Caspian Sea to the Brahmapootra). It includes the most refined, civilized, and powerful nations of ancient and modern times, as the Assyrians, Persians, Jews, Greeks, Romans, Arabians, Hindoos, Afghans, the nations of modern Europe, and their descendants in America. The Caucasian races settled in Europe are in three great sub-families,—the *Slavonians*, occupying Russia, Poland, and parts of Austria and Turkey; the *Teutonic* or *Gothic tribes*, occupying the greater part of the British Isles, Norway and Sweden, Denmark, Germany, Prussia, Holland, and parts of Belgium, Austria, and Switzerland;—and the *Celtic race*, found in the north-west of Scotland, west of Ireland, Wales, and, mixed with descendants of the ancient Romans and of Gothic tribes, in Belgium, France, Switzerland, Italy, Spain, Portugal.

The Mongolian race have projecting cheek-bones, a flat face, a broad skull, flattened at the sides, small black eyes obliquely set, a yellowish olive skin, straight black hair, and scanty or no beard. The Laplanders, Finns, and Hungarians in Europe, and all the Asiatics north and east of a line from about the south of the Caspian Sea to the Brahmapootra, are of the Mongolian race. The Hungarians, however, long placed in the midst of Caucasian races, have diverged considerably from the Mongolian character. The inhabitants of Greenland and the extreme north of America are of this race.

The Malayan race occupies the Malay Peninsula and Indian Archipelago. It has considerable resemblance to the Mongolians, being intermediate between that race and the Negroes or Ethiopians.

The Negro or Ethiopian race, marked by black and woolly hair, low and slanting forehead, projecting jaw and flattened nose, with thick lips, occupies the greater part of Africa, south of the Great Desert, part of Madagascar, Australia, and New Zealand, and many of the Polynesian Islands.

The American race is characterized by regular features, nose often aquiline, high but retreating forehead, and reddish copper-colour. It includes the native tribes of America; excepting the Esquimaux in the extreme north, who are of the Mongolian race.

## GEOLOGY.

**GEOLOGY** is the science of the structure of the earth and the changes which go on at its surface.

At first sight, it would appear that the materials at the surface of the earth are not arranged in any regular order, and that they are subjected to but few changes. But this is not the case. It has been found that the various matters at the earth's surface are arranged on a definite plan, and that they are undergoing, though very slowly, changes which in time will greatly alter the surface of every country.

We do not know much of the interior of the earth; it is thought that a depth of ten miles is the greatest extent of which we have any real knowledge. This is but an insignificant part, being no more than 1-400th of the distance from the surface to the centre.

When the parts below the surface are examined, as in quarries, railway cuttings, mines, and places where rocks are exposed to the weather, it is found that the various rocks or mineral masses are arranged in layers over each other, called *beds* or *strata*. These layers are often horizontal, sometimes inclined; and they are arranged in a certain regular order of succession, which order prevails in the strata in all countries, though some of the series are occasionally wanting.

Wherever rocks are exposed to the air, they become worn down by degrees into fragments, crumbling ultimately into sand or earth; and all the masses of earth, sand, and gravel found, are believed to have been formed from hard rocks by the action of air and water. This breaking down of rocks is called *disintegration*.

In the interior of many rocks, there are found the remains or impressions of animals or plants, which had lived in remote periods, and been buried among the matter of which the rock was formed. These are called *fossil* or *organic remains*.

Rocks which are arranged in strata are called **STRATIFIED ROCKS**; but there are some rocks found in irregular masses. These are called **UNSTRATIFIED ROCKS**.

Considered according to their mode of origin, rocks are of three kinds:—

1. **ROCKS OF ERUPTION**, which have issued from the interior of the earth in a fluid or semi-fluid state from heat; called also *igneous, volcanic, plutonic, unstratified rocks*. Examples,—granite, trap.

2. **SEDIMENTARY ROCKS**, which have been precipitated and deposited on the earth's surface from a fluid, in which the most minute particles were dissolved or held in suspension. Examples,—sandstone, chalk, beds of clay and some kinds of *limestone*. When the parts composing them are larger, they

are called conglomerates, as the conglomerate of the old red sandstone.

3. TRANSFORMED or METAMORPHIC ROCKS, in which the internal texture and mode of stratification have been changed after the formation of the rock. Example,—crystalline marble.

The two last are stratified rocks.

Rocks, however hard and apparently durable, are broken down by the action of air and moisture, and by the force of wind, rain, frost, and running water. These broken fragments are still farther disintegrated by rubbing against each other in streams. The larger and heavier parts remain at the bottom, but are gradually carried downwards by the force of the stream; while the finer particles remain suspended in the water, and are carried out into the lake or sea into which the river flows. There they gradually subside, the heavier particles first, and are deposited in strata or beds, at the bottom. The matter thus deposited contains the remains or impressions of the forms of many plants and animals, which had been carried down along with it. In this manner, the solid matter of the world is worn down to small particles, and deposited in strata at the bottom of the ocean, or of large lakes.

From the changes in the quantity of water in rivers at different seasons, and the alternate flow and ebb of the tide, the deposits vary in thickness, and sometimes one matter predominates, sometimes another.

It has been calculated that the river Ganges every year transfers from the land to the sea 6368 millions of tons of solid matter; and similar actions are going on in all the rivers of the world.

These strata do not always remain at the bottom of the water; they are sometimes raised by volcanic force, and become dry ground, fit for the growth and abode of land plants and animals. Nor do they always remain horizontal, as when first deposited, or undisturbed. Volcanic (or erupted) matter breaks through them, raises them into inclined positions—sometimes almost vertical—spreads in between them—alters their mineral character, and forms round abrupt masses lying over them.

Volcanic rocks are formed mostly from melted rock or lava which has issued from the interior of the earth; sometimes from showers of ashes which have issued from the craters of volcanoes, and spread over the adjoining country. Volcanic heat alters the sedimentary rocks; gives rise to gases and hot springs which issue in many places; causes earthquakes; and is believed to produce that gradual rising of the land, which is going on even at the present day, as in Sweden.

Everywhere the earth is warmer the deeper the place examined—the temperature increasing at the rate of about 1° *Fahrenheit* for every 54 feet from the surface. From this, from

The Bath stone is an oolite. We arrive next at the great CHALK FORMATION; consisting of greensand and chalk, with or without flints. The chalk extends from about Flamborough Head, in Yorkshire, south and south-west to the English Channel. It contains great abundance of shells, with remains of fishes and reptiles.

IV. TERTIARY STRATA.—These are chiefly limestones, marls, and clays, with some hard sandstones. They form the great Paris and London basins, extending in England from Norfolk to the Isle of Wight. They contain many remains of mammalia, with birds, fishes, and lower orders of animals.

These are the four great series of rocks. Above these are found masses of DILUVIUM (irregular beds of clay with stones, and remains of recent animals embedded in them), GRAVEL, ALLUVIUM (the deposit from rivers at their mouths or banks), PEAT, or half-decomposed vegetable substances mixed with water and earthy matter, and VEGETABLE SOIL, consisting of the surface rock worn down to powder and mixed with animal and vegetable remains.

These upper and more recent masses contain the remains of animals and plants contemporaneous with man, and also various very large mammalia, mostly of species now extinct, as the mammoth, fossil elk, etc.

# CHIEF ROOTS OF GEOGRAPHICAL NAMES.

It is believed that the following Glossary may be made of essential use to the learner of Geography, by teaching him the meaning of the names of places, and so fixing them more firmly in his memory. It may be used in various ways. Portions of it may be given out, day by day, to be got by heart. The teacher may farther require the pupil to find instances of the occurrence of the same roots in other names than those which appear in the Table. Or a number of names being given to the pupil, he may be asked to point out and explain their roots.

It will be readily understood that Ang.-Sax. stands for Anglo-Saxon; Arab. for Arabic; Basq. for Basque; Celt. for Celtic; Chald. for Chaldee; Chin. for Chinese; Dan. for Danish; Dut. for Dutch; Engl. for English; Esth. for Esthonian; Fr. for French; Germ. for German; Gr. for Greek; Hebr. for Hebrew; Hindost. for Hindostanee; Hung. for Hungarian; Ital. for Italian; Lat. for Latin; Mal. for Malay; Pers. for Persian; Port. for Portuguese; Russ. for Russian; Sanscr. for Sanscrit; Slav. for Slavonic; Span. for Spanish; Swed. for Swedish; Tart. for Tartar; Teut. for Teutonic; Turk. for Turkish.

AA, AAR, ARE, AIRE AYR (Celt.), <i>water</i> ;—the names of rivers in the British Islands, France, Flanders, Switzerland, Russia.	BAB (Chald. and Arab.), <i>a court</i> ;— <i>Babylon, Babelmandeb.</i>
AB, AP (Sanscr.), <i>water</i> ;—as in <i>Punjab, Doab.</i>	BACH, PACH (Germ.), <i>a stream</i> ;— <i>Schwarzbach, Anspach.</i>
ABAD (Sanscr.), <i>a dwelling, an abode</i> ;— <i>Allahabad, Jelalabad.</i>	BAD (Germ.), <i>a bath</i> ;— <i>Baden, Carlsbad.</i>
ABBE (Fr.), ABBEY, ABBOT (Engl.), <i>an abbey, an abbot</i> ;— <i>Abbeville, Abbeyleix, Abbotsford.</i>	BAHIA (Span.), <i>a bay</i> ;— <i>Bahia-de-Todos-los-Santos.</i>
ABER (Celt.), <i>the mouth of a stream</i> ;— <i>Aberdeen, Abergavenny.</i>	BAHR (Arab.), <i>a river</i> ;— <i>Bahr-el-Abiad, Bahr-el-Azrek.</i>
ACQUA (Ital.), AGUA (Span.), AIGUES, AIX (Fr.), <i>water</i> ;— <i>Acquapendente, Aguatico, Aigues-mortes, Aix, Aix-la-Chapelle.</i>	BAL, BALL, BALLY (Celt.), <i>a house, hamlet, or village</i> ;— <i>Batmoral, Ballantrae, Ballyshannon.</i>
ADEL (Teut.), <i>noble</i> ;— <i>Adelfora, Adelsberg.</i>	BEAL, BEALLEACH, BALLOCH (Celt.), <i>a pass, an outlet</i> ;— <i>Bealnambo, Bealeachnamban, Ballochmyle.</i>
AL, EL (Arab.), <i>the</i> ;— <i>Alcantara, Algiers, Elmina.</i>	BEAU (Fr.), <i>fair, beautiful, good</i> ;— <i>Beaupreau, Beauregard, Beauville.</i>
ALCALA (Arab.), <i>a castle or frontier town</i> ;— <i>Alcala-la-Real.</i>	BEER (Hebr.), <i>a well</i> ;— <i>Beersheba.</i>
ALT, ALTEN (Germ.), <i>old</i> ;— <i>Altkirch, Altenbruck.</i>	BEIT (Arab.), BETH (Hebr.), <i>a dwelling, temple, or place</i> ;— <i>Beit-el-fakih, Bethel, Bethesda, Bethlehem.</i>
ANTI (Gr.) <i>opposite to</i> ;— <i>Anti-Lebanon, Anti-Taurus.</i>	BELLE (Fr.), <i>fair, good, beautiful</i> ;— <i>La-Belle-Alliance, Belleisle.</i>
ARD, AIRD (Celt.), <i>a height, a promontory</i> ;— <i>Ardnamurchan, Ardfer, Kinnaird.</i>	BEN (Celt.), <i>a mountain</i> ;— <i>Bennevis, Benlomond.</i>
ARGUE, ERGUE (Fr.), <i>a field, a territory</i> ;— <i>Camargue, Rouergue.</i>	BERG (Germ.), <i>a mountain</i> ;— <i>Vorailberg, Donnersberg.</i>
AU (Germ.), <i>a meadow or prairie</i> ;— <i>Auerbach, Aarau.</i>	BLACK (Engl.), <i>black, dark</i> ;— <i>Blackstone, Blackadder, the Black Sea.</i>
AUCH, ACH (Celt.), <i>a field</i> ;— <i>Auchinleck, Auchleuchries, Achil.</i>	BLAIR (Celt.), <i>a plain or open</i> ;— <i>Bluirathole, Blairgowrie.</i>
AUCHTER, UACHTER (Celt.), <i>upper or high</i> ;— <i>Achterarder.</i>	BLANC (Fr.), BLANCO (Span.), BIANCO (Port.), <i>white</i> ;— <i>Mont Blanc, Cape Blanco, Castello Bianco.</i>
AVON (Celt.), <i>the name of many rivers in the British Islands</i> ;— <i>Strathavon, Glenavon, Avonmore.</i>	BOTTLE, BATTLE (Ang.-Sax.), <i>a dwelling, an abode</i> ;— <i>Harbottle, Newbattle.</i>
	BRAE (Celt.), <i>a hill, a slope</i> ;— <i>Braemar, Braerlach, the Braes of Angus.</i>
	BRIDGE (Engl.);— <i>Cambridge, Bridge-water, Stockbridge.</i>

- BRUCK, PRUCK** (Germ.), *a bridge*;  
—*Osnabruck, Innsbruck.*
- BRUNN** (Germ.), *a well or fountain*;  
—*Schoenbrunn.*
- BUENO** (Span.), **BUONO** (Ital.), *good*;  
—*Buenos-Ayres, Buonaparte.*
- BURGH, BURG, BOROUGH, BORROW, BROUGH, BURY** (Engl.), **BERG** (Germ.), **BORG** (Dan.), **BOURG** (Fr.), **BORGIO** (Ital.), *a fortified place, a municipality or corporate town*;  
—*Edinburgh, Burgh-upon-Sands, Burghhead, Marlborough, Borrowstounness, Broughty-ferry, Canterbury, Nuremberg, Aalborg, Cherbourg, Borgonovo.*
- BURN, BOURN** (Engl.), *a streamlet*;  
—*Bannockburn, Ashbourn.*
- BY** (Teut.), *a dwelling, a hamlet, a village*;  
—*Appleby, Kirkby, Lockerby.*
- CAER, CAR** (Celt.), *a fortified place*;  
—*Carnarvon, Carlisle, Carlow, Carhaix.*
- CAIRN, CARN** (Celt.), *a heap of stones, a mountain*;  
—*Cairngorm, Carnwath.*
- CALF** (Engl.), *a small island beside a large one*;  
—*Calf of Man, Calf of Eday.*
- CAMBUS** (Celt.), *the bend of a river*;  
—*Cambuskenneth, Cambusnethan.*
- CAMPO** (Ital. and Span.), **CHAMP** (Fr.), *a field, a plain*;  
—*Campo-Formio, Fécamp, Beauchamp, Champagne.*
- CASTLE** (Engl.), **CASTEL, CASTELLO** (Span. and Ital.), **CASTRO** (Span.), **CASSEL, KASSEL** (Germ.), **KASTRI** (Gr.), *a castle*;  
—*Castlereagh, Newcastle, Castel-Rodrigo, Castello-Bianco, Castro-Marino, Cassel, Kastellaun, Kastri.*
- CEAN, CAN, KIN** (Celt.), *a point, a promontory, a headland*;  
—*Cean-tyre, Candor, Kintyre.*
- CHAH, SCHAH** (Pers.), *king*;  
—*Schah-jehanpour.*
- CHAN** (Chin.), *a mountain*;  
—*Ychan.*
- CHAT** (Arab.), *a river*;  
—*Chat-el-arab.*
- CHATEAU, CHATEL** (Fr.), *a castle*;  
—*Chateau-Thierry, Chatelherault, Neufchatel.*
- CHEER, CHERRY** (Turk. and Pers.), *a house, a town*;  
—*Allahcheher, Cheeristan, Pondicherry.*
- CHESTER, CESTER, CASTER** (Ang-Sax.), *a fortified place*;  
—*Chester, Manchester, Gloucester, Lancaster.*
- CITTA, CIVITA** (Ital.), **CIUDAD, CIVIDAD** (Span.), *a city*;  
—*Citta-Nuova, Civita-Vecchia, Ciudad-Rodrigo, Ciudad-de-la-Trinidad.*
- CLIFF** (Engl.), *a rock, a hill-side*;  
—*Katcliffe, Clifton.*
- COL** (Ital. and Span.), *a mountain, a mountain-pass*;  
—*Col-du-Geant.*
- COMBE, CWM** (Celt.), *a hollow or vale*;  
—*Wycombe, Cwmneath.*
- COT, COAT** (Engl.), *a cottage, a hut*;  
—*Fencotes, Saltcoats.*
- COTE, COTTA, KOTTA** (Samscr.), *a fort, a dwelling*;  
—*Jagarcote, Delcotta.*
- COURT, COUR, COR** (Fr.), *a walled enclosure, a court*;  
—*Harcourt, Courcelles, Corbeton.*
- CRAIG, CARRICK, CROAGH** (Celt.), *a crag, a rock, a rocky mountain*;  
—*Craigmillar, Craighadric, Carrickfergus, Croaghpatrick.*
- DAGH** (Pers.), *a mountain*;  
—*Daghestan.*
- DAIR** (Arab.), *a house*;  
—*Dair-el-Kamar.*
- DAL** (Celt.), *a territory*;  
—*Dalriada, Dalry, Dalkeith.*
- DALE, DAL** (Teut.), *a valley, a dale*;  
—*Dovedale, Tweeddale, Dalecarlia.*
- DAM, DAMM** (Germ.), *a bank, a sluice, a dam*;  
—*Amsterdam, Rotterdam.*
- DARIA, DERIA** (Tart.), *a river*;  
—*Kizil-daria.*
- DEN** (Engl.), *a ravine*;  
—*Walden, Hawthornden.*
- DHU, DHUIBH, DUFF, DU, DO, DOO, DOV** (Celt.), *black, dark*;  
—*Rossdhu, Benmuickdhuibh, Dufferin, Duloch, Avon-Du* (the old Highland name of the Forth), *Don* (Do-avon), *Doon* (Doo-avon), *Dovern.*
- DIB, DIV, DIVA** (Samscr.), *an island*;  
—*Serendib, Maldives.*
- DJEBEL, JEBEL** (Arab.), *a hill*;  
—*Djebel-el-Mousa, Djebel-el-Tarik* (Gibraltar), *Jebel-Kumri.*
- DORF** (Germ.), *a dwelling, a village*;  
—*Dusseldorf, Altdorf, Neudorf.*
- DRUM** (Celt.), *a ridge*;  
—*Drummelzier, Drumcliff.*
- DUN, DUM, DON** (Celt.), *a height, a fortified place*;  
—*Dunfermline, Dungannon, Dunkirk, Dumbarton, Dumfries, Snowden, Chateaudun.*
- EAST, EST, ES** (Engl.), *eastern*;  
—*Eastbourne, Essex.*
- ECCLIES, EGLES** (from the Lat. *ECCLÉSIA*), *a church*;  
—*Ecclefechan, Ecclesmachan, Eghwysfair, Terregles.*
- EISEN** (Germ.), *iron*;  
—*Eisenberg.*
- ERMAK, IRMAK** (Turk.), *a river*;  
—*Kizilermak, Jekilirmak.*
- ES, EIS** (Gr.), *at*;  
—*Setines* (contracted from *Es Athinai*), *Stamboul* (from *Es tin polin*).
- ESK, UISC, USK, EWES, OUSE** (Celt.), *water*;  
—*Glenesk, Eskdale, Inveresk, Usk, Ewesdale, Ouse.*

ESKI (Turk.), *old*;—*Eskicheher*.  
 ETANIA, ITANIA (Basq.), *habitation*;  
 —*Lusitania*, *Aquitania*.  
 EY, AY, AE, A, EA, OE (Teut.), *an island*;—*Orkney*, *Bardsey*, *Colonsay*,  
*Cumbræ*, *Staffa*, *Anglesea*, *Faroe*.  
 FELL, FELD (Teut.), *a hill, a rock*;—  
*Crossfell*, *Hartfell*, *Goatfell*, *Dovre-*  
*feld*, *Drachenfels*.  
 FERRY (Engl.), *a passage across a*  
*river, lake, or firth*;—*Ferrybridge*,  
*Queensferry*, *Portaferry*.  
 FERTE (Fr.), *a little fort*;—*Ferté-*  
*Fresnel*, *La Ferté-sur-Péron*.  
 FIELD, FELD (Teut.), *a plain*;—*Lich-*  
*feld*, *Donnersfeld*, *Feldkirch*.  
 FIRTH, FRITH, FIORD (Teut.), *an arm*  
*of the sea*;—*Pentland Firth*, *Sol-*  
*way Firth*, *Flekkefjord*.  
 FONT, FONTAINE (Fr.), FONTE (Ital.),  
 FUENTE (Span.), *a well, a spring, a*  
*fountain*;—*Fontenoy*, *Fontaine-*  
*bleau*, *Fossano*, *Fuentes-de-Ebro*.  
 FORCE (Teut.) *a waterfall*;—*Wilber-*  
*force*, *Aysgarthforce*.  
 FORD (Engl.), FURT (Germ.), *a pas-*  
*sage across a river*;—*Oxford*, *Long-*  
*ford*, *Abbotsford*, *Frankfurt*.  
 FORT (Engl. and Fr.), *a stronghold*;  
 —*Fortwilliam*, *Rochefort*.  
 FRANK (Germ.), *free*;—*Frankfort*.  
 FREE (Engl.), FREY (Germ.), *free*;—  
*Freeport*, *Freetown*, *Freyburg*.  
 GAMLA (Swed.), *old*;—*Gamla-Carle-*  
*by*.  
 GANGA, GUNGA (Sanskrit), *a river*;—  
*Ganges*, *Kishengunga*.  
 GAR, GUR, GHUR (Sanskrit), *a fortified*  
*place*;—*Kaschgar*, *Stargar*, *Bissen-*  
*gur*, *Futteghur*.  
 GARTH (Teut.), *a farm*;—*Applegarth*.  
 GATE (Engl.), *an entrance*;—*Rams-*  
*gate*, *Gatehouse*.  
 GAU, GOVIA (Germ.), *a village, a*  
*township*;—*Thurgau*, *Thurgovia*.  
 GAUT, GHAUT (Sanskrit), *a passage*;  
 —*Ramgaut*.  
 GEBIRGE (Germ.), *a mountain*;—  
*Riesengebirge*.  
 GRN (Teut.), *a field*;—*Nimuegen*,  
*Gronigen*.  
 GHERD (Pers.), *a town*;—*Darabgherd*.  
 GHEBBY, GHIRI (Sanskrit), *a moun-*  
*tain*;—*Kistnagherry*, *Dhawala-*  
*ghiri*.  
 GLEN (Celt.), *a valley*;—*Glencoe*,  
*Glendalough*, *Rutherglen*.  
 GOROD, GRAD (Slav.), *a town*;—  
*Novgorod*, *Novygrad*, *Gorodetz*,  
*Gradiska*, *Belgrade*.  
 GRAFEN (Germ.), *a chief, a noble*;—  
*Grafenthal*.

GRAND, GRANDE (Fr. and Span.),  
*great*;—*Grand-Lucé*, *Rio-Grande*.  
 GREAT (Engl.);—*Great Yarmouth*.  
 GREEN (Engl.), GROEN (Germ.), *green*;  
 —*Greenwich*, *Groeningen*.  
 GROSS (Germ.), *great*;—*Grossbor*.  
 GUADA (Arab.), *a stream, the valley*  
*of a river*;—*Guadalquivir*.  
 HAFF (Germ.), *a port, an inlet of the*  
*sea*;—*Curischhaff*.  
 HAI (Chin.), *the sea*;—*Kanhai*.  
 HALL (Engl.), *a house*;—*Basinghall*.  
 HAM, HAMM, HAMN, (Swed.), *a port*;  
 —*Friedrichsham*, *Carlskamm*.  
 HAM, HEIM, HEM (Teut.), *a home,*  
*a village, a town*;—*Birmingham*,  
*Coldingham*, *Drontheim*.  
 HAUS, HAUSEN, HUUS, HOUSE (Teut.),  
*a dwelling*;—*Alhaus*, *Mullhausen*,  
*Aggerhuus*, *Auchterhouse*.  
 HAVEN, HAVN (Teut.), *a port, or har-*  
*bour*;—*Newhaven*, *Karlshaven*,  
*Thorshavn*.  
 HEAD (Engl.), *a promontory, a cape*;  
 —*Holyhead*, *St Abb's Head*.  
 HILL (Engl.), *a height, a mountain*;—  
*Boxhill*, *Thornhill*.  
 HIMA (Sanskrit), *frost, winter*;—*Hima-*  
*laya*.  
 HISSAR (Turk.), *a stronghold*;—*Kara-*  
*hissar*.  
 HITHE (Ang.-Sax.), *a port, a har-*  
*bour*;—*Queenhithe*.  
 HO (Chin.), *a river, a canal*;—*Hoang-*  
*ho*, *Yuhö*.  
 HOCH, HOHE, HOY (Teut.), *high*;—  
*Hochstadt*, *Hohenstadt*, *Hoy Island*.  
 HOLL (Germ.), *hollow, low*;—*Hol-*  
*land*.  
 HOLM (Teut.), *an islet, flat land on the*  
*bank of a river or firth*;—*Stock-*  
*holm*, *Axholm*, *Greenholm*.  
 HOLY, HALY, HALLOW, HEILIGEN  
 (Teut.), *sacred, venerable*;—*Holy-*  
*head*, *Holy Isle*, *Holy Loch*, *Hali-*  
*fax*, *Einhallow*, *Heligoland*.  
 HOPE (Teut.), *a creek, a bay*;—*St*  
*Margaret's Hope*, *Long Hope*.  
 HOPE (Teut.), *a little vale*;—*Dryhope*,  
*Stanhope*.  
 HORN (Germ.), *a mountain peak*;—  
*Hornberg*, *Wetterhorn*.  
 HRAD (Slav.), *a town*;—*Hradek*.  
 HURST (Ang.-Sax.), *a wood, a forest*;  
 —*Lyndhurst*.  
 IAR (Russ.), *a bank*;—*Iaroslaf*, *Kras-*  
*noiarsk*.  
 IENI (Turk.), *new*;—*Ienicalch*.  
 ILI (Turk.), *a country*;—*Roumili*.  
 INCH, INNIS, ENNIS, YNYS (Celt.), *an*  
*island*;—*Inchkeith*, *Innisbofin*, *En-*  
*niskillen*, *Ynysmoch*.

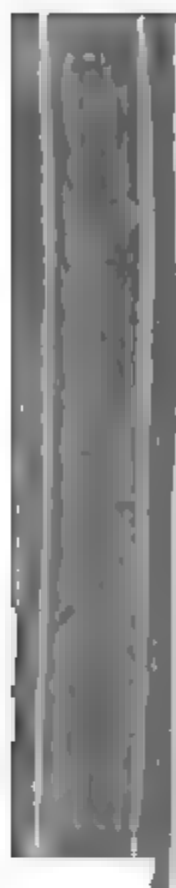


- IGA, INGE, INGEN** (Teut.), *a field, a plain, a meadow*;—Godalming, Thuringe, Tubingen.
- INVER, INNER** (Celt.), *the mouth of a stream*;—Inveraray, Innerkip.
- ISLE** (Engl. and Fr.), **ILHA** (Port.), *an island*;—Isle of Wight, Fair Isle, Belleisle, Ilha Grande.
- KAISER** (Germ.), *Cæsar, the Emperor*;—Kaiserstadt.
- KAMEN, KAMIEN** (Slav.), *a stone, a rock*;—Kamienitz, Kamienko.
- KARA** (Tart.), *black*;—Karamania.
- KELAT, KALAH** (Arab.), *a fort*;—Kelat.
- KEND, KAND** (Sanskrit), *a kingdom, a fortress*;—Taschkend, Samarkand.
- KENI** (Turk.), *a town*;—Kadikeni.
- KIANG** (Chin.), *a river*;—Kiang-yuen, Yang-tse-Kiang.
- KIL** (Celt.), *a church*;—Kilmarnock, Kilkenny.
- KIN** (Celt.), *a point, a headland*;—Kintyre.
- KIN** (Chin.), *gold*;—Kinchuan.
- KING** (Engl.), **KÖNIG** (Germ.), *a monarch*;—Kingston, Koenigstadt.
- KIOBING, KIOPING, KOPING, COPEN, CHIPPEN** (Teut.), *a market*;—Nykiobing, Lidkioping, Linkoping, Copenhagen, Chippenham.
- KIRK, KIRCHEN, KERQUE, CHURCH** (Teut.), *a church*;—Kirkcudbright, Kirkby-Lonsdale, Falkirk, Dunkirk, Hohentkirchen, Kirchenlauter, Christchurch.
- KIS** (Slav.), *little*;—Kischenef.
- KLEIN** (Germ.), *little*;—Kleinaspach.
- KNOCK, CNOCK** (Celt.), *a hill*;—Knockmeledown, Knock of Strathisla.
- KOPF** (Germ.), *a head, a summit*;—Ochsenkopf.
- KOUL, KAL, KOL** (Tart.), *a lake*;—Tchebarkoul, Baikal.
- KRASNO** (Slav.), *ruddy, fair*;—Krasnoïarsk.
- LAKE, LOCH, LOUGH, LAACH, LAGO** (Teut.), *a sheet of water*;—Lake Superior, Gairloch, Lochnagar, Lough-Neagh, Glendalough, Laachersee, Lago-Maggiore.
- LAND** (Teut.), *a country, a region*;—England, Netherlands, Milan.
- LANG, LANGE, LANGEN** (Teut.), *long*;—Langeland, Langholm, Langenberg.
- LAUTER** (Germ.), *clear*;—Lauterbourg.
- LAW** (Ang.-Sax.), *a hill*;—North Berwick Law, Wardlaw.
- LES, LIS** (from ECCLES), *a church*;—Lesmahago, Lismore.
- LEY, LEIGH** (Ang.-Sax.), *pasture, fallow-ground*;—Dudley, Chudleigh.
- LICHT, LICHTEN** (Germ.), *clear, bright*;—Lichtenwald.
- LIN** (Celt.), *a pool, a lake, a waterfall*;—Roslin, Linlithgow, Linton.
- LIN** (Esth.), *a town*;—Tablin or Danlin (Revel).
- LITTLE** (Engl.), *small*;—Littleton.
- LLAN** (Celt.), *a church*;—Llandaff.
- MA** (Arab.), *water*;—Bahr-bela-ma.
- MAHA** (Sanskrit), *great*;—Mahanoddy.
- MAHL** (Hindust.), *a place, a fortress*;—Baramahl.
- MANDEL, MANDALA** (Sanskrit), *a country, a kingdom*;—Coromandel.
- MARK, MARCH** (Teut.), *a boundary, a frontier, a division, a district*;—Denmark, Markdorf, Marchmont.
- MARKET, MARKT** (Teut.), *a market*;—Market Weighton, Newmarket, Marksbach.
- MEDINA** (Arab.), *a town*;—Medinaceli.
- MEN** (Chin.), *a passage*;—Houmen.
- MIDDLE** (Engl.), *in the midst, between*;—Middlesex, Middleton, Middleby.
- MILL** (Engl.), **MUHL** (Germ.), *a mill*;—Millford, Newmill, Muhlhausen.
- MINSTER, MONASTER, MUNSTER** (Teut.), **MOUTIER** (Fr.), *a monastery, a monastic church*;—Westminster, Monasterboice, Munster, Farmoutiers.
- MONT** (Fr.), **MONTE** (Ital.), **MOUNT, MONTH** (Engl.), **MONADH, MYNYDD** (Celt.), *a hill, a mountain*;—Mont Blanc, Beaumont, Montenegro, Marchmont, Monthkeen, Monadhliadh, Mynydd-Mawr.
- MOOR, MORE, MUIR** (Engl.), *a waste, a wild, heathy ground*;—Dartmoor, Exmore, Lammermuir, Gladsmair.
- MOB** (Celt. and Slav.), *the sea*;—Armorica, Morea.
- MOB, MOHR, MORE, MAWR** (Celt.), *great, large*;—Strathmore, Morven, Arranmore, Penmaenmawr.
- MOUTH** (Engl.), **MONDE, MUDE** (Germ.), *the efflux of a stream*;—Portsmouth, Plymouth, Speymouth, Dendermonde, Tangermunde.
- MULL** (Teut.), *a headland*;—Mull of Galloway.
- NAGAR, NAGOR** (Sanskrit), *a town*;—Bisnagar, Chandernagor.
- NAGY** (Slav.), *great*;—Nagy-Kikinda.
- NAN** (Celt.), *a brook*;—Nantes, Nanterre.
- NAN** (Chin.), *southern*;—Nanking.
- NEW, NEU, NIEUW, NY** (Teut.), **NOUVEAU, NOVELLE, NEUF** (Fr.), **NUOVO**

- NUOVA** (Ital.), **NUOVO** (Span.), **NOVOT**, **NOVAIA**, **NOVY** (Slav.), **NEO**, **NEA** (Gr.), *new, modern*; **Newcastle**, **Neuburg**, **Nienmkerk**, **Nyland**, **Nouvelle France**, **Chateaufort**, (Иваново, Иланово, Истелла la Nuova, **Novgorod**, **Novos Novos**) **Zembla**, **Novograd**, **Neocastro**.
- NARA**, **NARA**, **NASS** (Teut.), *a headland*; — **Althaus**, **Dungeness**, **Lindemann**, **Nashhead**, **Swiatol-noss**.
- NETHER**, **NIEUW** (Teut.), *lower*; — **Netherlands**, **Niederishstein**.
- NIFEI** (Slav.), *rather, lower*; — **Nyem Novgorod**.
- NOA** (Tart.), *a lake*; — **Kokonor**.
- NORTH**, **NORD**, **NOA** (Teut.), *northern*; — **Northampton**, **Northhausen**, **Norfolk**, **Norway**, **Normandy**.
- ON** (Teut.), *an island*; — **Faro**.
- OLD**, **OLDEN**, **ALD**, **OUDE** (Teut.), *old, ancient*; — **Oldham**, **Alfborough**, **Oldenburg**, **Oudenarde**.
- OOR**, **ORTA**, **OOST** (Teut.), *eastern*; — **Oostend**, **Oosterhofen**, **Oostersch (Austria)**, **Oostham**.
- OUA** (Chin.), *a river*; — **Saghalien Oua**.
- OVER**, **OBER**, **OUER** (Teut.), *upper*; — **Overton**, **Oberhofen**, **Oderberg**.
- PATAH**, **PATAN**, **PATHAN** (Sansk.), *a town or city*; — **Seringapatam**, **Chinayapatam**, **Kintapatam**.
- PE** (Chin.), *north*; — **Pekin**.
- PEI** (Chin.), *white*; — **Peking**.
- PIK** (Celt.), *a hill, a headland, a top, a summation*; — **Pennine**, **Pennine**, **Pennine**.
- PIND**, **POND** (Sansk.), *sea*; — **Pind**, **Pond**, **Pond**.
- PLAIS** (Fr.), *a hedge, a park*; — **Plais-le-Moutier**.
- POL**, **POLI**, **POLM**, **PLA**, **PLA**, **PLA** (Gr.), **POON**, **POON**, **POON**, **POON**, **POON**, **POON** (Sansk.), *a city or town*; — **Sebastopol**, **Nicopol**, **Persepolis**, **Adrianople**, **Naples**, **Grenoble**, **Singapore**, **Schahjahanpur**, **Madjahanpur**, **Nowpore**, **Caujapora**.
- POOL**, **POLA**, **POLL**, **POW**, (Eng.), *a still water*; — **Liverpool**, **Ullapool**, **Walpole**, **Kirkpool**, **Polonia**, **Portoula**.
- PORT**, **PORTE** (Fr. and Ital.), **PORTUS** (Sp.), *a bridge*; — **Port-a-Mousson**, **Portocorvea**, **Portobuena**.
- PORT** (Eng.), **PORTO** (Ital. and Port.), **PORTO** (Span.), *a port or harbour*; — **Portsmouth**, **Devonport**, **Porto-bello**, **Porto-real**.
- POULO** (Gr.), *little*; — **Poulo-Bano**.
- POULO** (Mal.), *an island*; — **Poulo-Poulo**.
- PRAYANA** (Sansk.), *a confluence, or meeting of waters*; — **Devaprayaga**.
- QUEEN** (Engl.); — **Queensbury**, **Queensland**, **Queenshith**.
- RAJAH**, **RAJ** (Sansk.), *a king*; — **Rajahmundry**, **Rajpootana**.
- RAS** (Arab.), *a head*; — **Ras-al-Had**.
- RATH**, **RAIT**, **ROTH**, **RITH** (Celt.), *a fortified place*; — **Rathconick**, **Rathven**, **Logherath**, **Rothbury**, **Rotham**.
- REAL** (Span.), *royal*; — **Montreal**.
- REICH**, **RIE** (Teut.), *of a king, a kingdom*; — **Reichstadt**, **Osterreich (Austria)**.
- REKA** (Slav.), *a stream*; — **Tchernavka**.
- RIO** (Span.), *a river*; — **Rio-de-la-Plata**.
- ROCK** (Fr.), **ROCK** (Engl.), *a rock, a stronghold*; — **Rockville**, **Rockingham**, **Rocky**, **Rognamond**.
- ROE**, **ROSE**, **ROSE** (Celt.), *a peninsula, a headland*; — **Roslin**, **Malros**, **Rosneath**, **Culross**, **Muckross**.
- SALT** (Engl.), **SALE** (Germ.), *salt*; — **Saltcoats**, **Saltbourn**.
- SCHAK**, **SHAK** (Pers.), *a king*; — **Schahjahanpur**.
- SCHNEE** (Germ.), *snow*; — **Schneberg**.
- SCHORN** (Germ.), *fair, beautiful*; — **Schoenbrunn**.
- SCHWAB** (Germ.), *black*; — **Schwabenberg**.
- SEA**, **SEE**, **ZEE**, **BOE** (Teut.), *a sheet of water, a lake, a sea*; — **Seaford**, **Sealand**, **Zuydersee**, **Fremundsee**.
- SELO** (Russ.), *a village*; — **Tsarkoselo**.
- SEMLA** (Slav.), *land*; — **Novia-Semla** (Nova Zembla).
- SENG** (Dan.), *a meadow*; — **Thorseng**.
- SERAI**, **SIRAI** (Tart.), *a palace*; — **Bakhtsarai**.
- SEX** (Ang-Sax), *season*; — **Sex**.
- SHIEL**, **SHIRLS** (Ang-Sax), *a temporary hut, a summer dwelling*; — **Shiel**, **Shiels**.
- SI** (Chin.), *western*; — **Shih**, **Shih**.
- SIDY** (Arab.), *a lord*; — **Sidy-lah**.
- SIERA** (Span.), *a saw, a rugged ridge of mountains*; — **Sierra Nevada**.
- SK** (Russ.), *a contraction from SKOR and SKALA, the termination by which the name of a man or river is changed into an adjective, so as to denote a town*; — **Aleksandrovska**, **Tobolsk**.
- SKERRY** (Teut.), *a reef, a rock, a rocky islet*; — **Skerryvore**.
- SLIYE**, **SLIANN**, **SLA** (Celt.), *a hill*; — **Slieve Donard**, **Slamannan**.
- SLOT**, **SOLOOT** (Germ.), *a fortress*; — **Nalechio**.







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